INTERSTATE MEDICAL JOURNAL.

VOL. XI. OCTOBER, 1904. No. 10.

ORIGINAL ARTICLES.

RECENT EXPERIENCES IN GASTRO-ENTEROSTOMY, WITH ESPECIAL REFERENCE TO THE VALUE OF DISCRIMINATION IN THE METHOD TO BE USED.

BY WILLARD BARTLETT, A. M., M. D., of St. Louis.

The title of this article suggested itself, upon reading recently that an operative mortality of no less than 48 per cent. had resulted from the performance of gastro-enterostomy for cancer at the hands of no less skilled an operator than Prof. Fedor Krause. A partial explanation at least, for this very high figure, (D. Maragliano, Klinische und Pathologisch-Anatomische Erfahrungen auf dem Gebiete der Magenchirurgie, Beitræge zur Klinischen Chirurgie, Band xli, Heft 3), seems to lie in the choice of the technique employed. Twenty-nine such operations were performed upon patients, the most of whom are described as being markedly reduced in strength, but nevertheless a *suture* operation was done in every instance and in most of them a *suture* entero-enterostomy was added. The time consumed by such a procedure even in skilled hands, can but be a serious consideration, at least that has been my sad experience, as well as that of every surgeon whom I have had the privilege of observing. In benign cases it is quite another matter, there time does not count for nearly so much, and some such technique as that described above is universally considered to be excellent and quite in place, because better permanent gastric drainage is secured in these cases with a partially open pylorus. Prof. Krause is further committed to the policy of using no Murphy button or other mechanical contrivance in his stomach operations, but makes use of a suture method, no matter what the pathological condition, *i. e.*, no matter whether the patient be one of those pitiable subjects in whom a gastric cancer has progressed so far that radical operation is impossible, or whether he be still in the relatively good condition which is not incompatible with gastric ulcer.

The reasoning of Mayo, Ochsner and other American surgeons with regard to this matter, is as different from that above as is their mortality lower than that first quoted. They go so far as to formulate a rule which reads somewhat as follows: In cancer, anterior button or McGraw

ligature operation; in ulcer, posterior suture operation. In short, the idea is to get the cancer patient back into bed alive, and with a new opening, which though small (if button be used) will remain patent because nothing can escape at the pylorus; while in ulcer, time not being quite so precious, preference is given the kind of operation which will establish the best form of permanent gastric drainage.

In the eight consecutive cases reported herewith, operated upon in a little more than nine months, I violated the above formulated rule once, and have just one unfortunate result to tabulate: the lesson was to me so striking as to make me a firmer adherent to the rule and a warmer admirer of the men whose experience enabled them to give it to us for our guidance.

In an article like this one, in which the object is to prove the value of a certain operative technique, it is surely better to eliminate as far as possible the personal element which would surely enter if the operations of more than one surgeon were considered. The same line of reasoning has impelled me to select consecutive cases treated within a relatively short space of time (nine and one-half months), believing that my own attitude toward this problem can hardly have undergone much change in so short a time. When a surgeon attempts, on the other hand, to draw technical conclusions from work that covers several years, there is always the danger that the operative procedure in question may not stand wholly on its own merits, since the growing experience and manual dexterity of the operator are bound to cut so large a figure in the results.

For the sake of simplicity I have seen fit to mention only the leading characteristics in the histories of these eight cases, and have grouped them with reference to the pathological condition, rather than in their chronological order. The first four operations were done for malignant disease, the second four for benign disease.

Case 1.—Mrs. R., a middle-aged lady, had been suffering a little more than a year with stomach trouble which was accompanied by the classical symptoms of vomiting, loss of weight and appearance of a tumor in the right side. When she entered the hospital, the gastric motility was found to be greatly disturbed, the organ immensely dilated and displaced. The chemical findings were not absolutely conclusive, still a probable diagnosis of carcinoma ventriculi was made and an operation undertaken September 29, 1903. When the abdomen was opened, the following interesting picture presented itself: Corresponding to the location of the tumor above mentioned, there was seen surrounding the gall-bladder and adherent to it, a portion of the omentum, the transverse colon and the pylorus. There was no carcinoma of the pylorus, the stomach symptoms were accounted for merely by the traction upon and consequent displacement of that portion of the organ.

I removed the gall-bladder which proved to be carcinomatous, and then

finding it impossible to relieve the adhesion around the pylorus to my entire satisfaction, proceeded to do a gastro-enterostomy and supplementary entero-enterostomy. Here I made what I consider the very grave error of violating the rule formulated above by making the anterior operation with suture (two rows continuous); the supplementary operation being accomplished by introducing one-half of a Murphy button into each of the open intestinal loops and pressing the two together without a suture. The whole operation took one hour and a half for its performance, the patient never rallied from the shock and died about twelve hours later.

Nothing could better illustrate to my mind the evil of a long operation upon patients who happen to be the subjects of malignant disease of the abdominal viscera. I am as much opposed as anyone else can be to the principle of using mechanical contrivances where they can be avoided, but I prefer to use any possible method which enables me to get my patient over the operation, even though I may thereby expose him to certain remote dangers. The results of the three operations which follow will demonstrate the correctness of this reasoning.

Case 2.—The subject of this sketch was a lady almost eighty years of age, emaciated to the last degree, the victim of chronic obstruction; altogether about the worst subject imaginable for a trying surgical operation. The abdomen was immensely distended and attacks of vomiting which came on immediately after eating suggested that the obstruction was high in the alimentary tract. As a likely explanation of this chronic ileus, a tumor was noted just above the pubis, nearly as large as a man's fist, but somewhat sausage-shaped and freely movable. At the operation on October 2,1903, this new growth was seen to be of the pylorus, it having descended of its own weight until the stomach had assumed an almost vertical position. The age of the woman and her low vitality militated against a radical operation, so a point low down on the anterior wall of the stomach was chosen and an anatomosis with the jegunum quickly made by Murphy button. Only sixteen minutes were consumed, there was no shock, hardly any discomfort afterward, never any vomiting; and this woman, in spite of her eighty years, and the fact that she had nearly starved in consequence of a cancerous pyloric obstruction, made an uneventful recovery. She was up on the sixth day after operation, taking a general diet soon after, and lived in comparative comfort, as far as the stomach was concerned, for seven months.

An interesting feature of this case is that the stomach, after drainage, resumed something like its normal size and position, the tumor gradually rising from the pelvis up to a location in the right hypochondrium in which it could be felt only with difficulty. I had used one of those expensive Murphy buttons, the two halves of which are of unequal size, still the circumstances that the much larger flange was in the jegunum,

did not prevent the whole contrivance from finding its way into the stomach, where it was demonstrated by the "x-ray," and where it remained without causing symptoms during the remainder of the patient's life.

Case 3.—An elderly man presented himself with all the typical signs and symptoms of a cancer of the pylorus, and none attributable to any other cause. He had been a well man till about a year previous, when digestive disturbances had appeared and increased in severity until the present. At the time my observation of him commenced he was greatly emaciated, had reduced his diet to a minimum on account of almost constant vomiting, there was a tumor the size of a hen's egg in the right hypochondrium, the stomach was displaced and dilated, no hydrochloric acid, but lactic acid in abundance, and, all told, the patient seemed to present about as clear a picture of pyloric obstruction due to carcinoma as one could desire to see. On April 23, 1904, he was operated upon and the diagnosis, *as far as has been stated,* verified in every particular. At the pylorus there was a new growth to which the transverse colon and pancreas were adherent, precluding radical operation. This much being established, it seemed good surgery, as I believe the reader will agree, to perform a gastro-enterostomy as rapidly as possible and get the patient back to bed. Having the two preceding cases in mind, I quickly did the anterior operation with a Murphy button, enjoying a most gratifying result. The patient sat on the edge of his bed on the second day, left the bed for good on the sixth day, was down in the hospital garden on the ninth day, and left the city for home, a distance of eighty miles, on the twelfth day. On the fourth day afterthe operation he wrote his relatives at home that he had not felt so well for six months, and was at this time taking a largely increased amount of fluid nourishment. Still he would continue to regurgitate a little now and then, while there was an annoying partial persistence of gastric symptoms which perplexed us at the hospital no little. We could not see why it was that a stomach which was draining properly should behave in this way, even though the pylorus were closed by a cancer. Things went on in this manner until almost four weeks after the operation, when I received a telegram stating that the patient was dead, his demise having occurred rather suddenly after two or three days of persistent vomiting, up to the commencement of which he was thought to be doing fairly well. With the permission to make an autopsy I gladly traveled the eighty miles and was rewarded by the following unique findings:

The gastro-enterostomy was mechanically perfect. Not an adhesion surrounded it, the opening being almost as large as a silver quarter, the two limbs of gut being of about the same caliber, the colon to the proximal side of the overhanging jegunum being slightly dilated. The stomach was shrunken considerably since the operation and retracted into the left hypochondrium (the button being found within it). The mass at

the pylorus, on the close inspection possible at an autopsy was seen not to have originated in the tissues of the pylorus, but to be intimately adherent to it and to have caused merely a mechanical obstruction. On opening the stomach the pyloric mucosa was seen to be intact, but the lumin closed by the pressure of the mass just referred to. To our intense astonishment, however, the entire cardia and a portion of the lesser curvature were seen to be the seat of a widespread new growth, which had ulcerated extensively into the lumin of the viscus. The mass at the pylorus, being evidently much the younger of the two, was surely metastatic in character, but by its mechanical presence caused the obstructive symptoms which drove the patient to seek relief through an operation. At the autopsy I was naturally embarrassed to note that I had overlooked the primary, though clearly inoperable trouble; still I trust it will be admitted that I did what was best for my patient when I did what I could to relieve the pyloric obstruction and refrained from searching for hidden pathological curiosities.

Case 4.—This presents some unusual features, though not with regard to the matter of diagnosis as has obtained in the three which have preceded it. The patient was a maiden lady of middle age who had suffered about sixteen months when she became the subject of surgical treatment. She now presented a considerable degree of emaciation; the diet was reduced to a minimum, she vomited almost everything she swallowed, and the gastric analysis was in every respect indicative of an obstructing carcinoma of the pylorus. In the right side of the abdomen was a tumor about the size of a man's fist that was so freely movable it could readily be pushed over into the left lumbar region without complaint being elicited from the patient thereby. The abdomen was not especially sensitive in any part, the muscles were soft, and altogether the peritoneum seemed free from involvement. But now witness the change during the few days of examination which preceded the operation: the abdomen suddenly became exquisitely tender to the touch, temperature and pulse rose slightly, and the tumor was found to have become immovably fixed in its position in the right abdomen. This all, no doubt, being due to the palpation to which the mass had been subjected, though all examinations had been made with the usual regard for a patient's comfort, and none had even seemed disagreeable to this one. It is a well known fact that careless palpation may lead to the dissemination of an inflammatory collection which has been sharply localized within the abdomen, but it cannot be very common for a localized adhesive peritonitis to be set up around an abdominal tumor, as a result of palpation. However, the accident is one which shall be kept within the range of possibilities in future examinations of this kind. On June 18, 1904, the abdomen was opened and the tumor found to involve the pylorus, as anticipated. The mass was covered with a thick layer of fibrin, and, in consequence, firmly adherent to the anterior wall and sur-

rounding viscera. A gastro-enterostomy was rapidly made with the Murphy button on the anterior surface of the stomach and the patient put to bed in good shape. She did well in every particular, but at the end of the first week the dressing was changed and the sutures removed, when, to our chagrin, the wound opened for a short distance to allow the escape of a considerable amount of dark thick pus from the depths; evidently the depths of the wound in the abdominal wall had become infected from the peritoneum, which has been referred to as being inflamed. A few days later a small amount of thin fluid faecal matter appeared in the wound, showing that the visceral union had been disturbed in much the same manner as had that in the structures composing the abdominal wall. In spite of these drawbacks the patient continued to improve, was soon sitting up and partaking of a general diet without inconvenience, though it must be admitted that this ideal state was not long maintained. She soon again began to lose strength as well as appetite, the lower extremities became oedematous, the fistula never closed entirely, and on the 20th of August she died. Although she survived the operation only a little more than two months, still she was at least rescued for a time from the pangs of slow starvation, and, according to her own statement, her condition rendered much more tolerable by the procedure.

The Murphy button was never passed, though there were never sympioms which could have been attributed to its presence.

Before leaving the consideration of these malignant cases it may not be amiss to recapitulate the especial points of interest which came up during the observation of them.

Patient No. 1 presented all the subjective and objective symptoms of pyloric carcinoma; still, at the operation, it was found that adhesions between a carcinomatous gall-badder and the pylorus were responsible for the disturbance in gastric functions. The finding of a tumor is thus explained as is the circumstance that the chemical examination of the stomach contents did not reveal what would have been expected had this mass been an intrinsic neoplasm of the pylorus.

In the second case, the position of the pyloric tumor directly upon the pubic arch might have been regarded as a factor disturbing to diagnosis. It is interesting to note in this connection that it was not the weight of the tumor as much as that of the retained stomach contents that lead to such a displacement of the pylorus, since the performance of a gastro-enterostomy was immediately followed by the return of the organ to its natural position, though the size of the tumor was of course not much affected thereby.

In case No. 3 it was a secondary carcinomatous manifestation in the pyloric region which lead to a train of symptoms, every one of which is usually considered as being indicative of primary pyloric cancer, the original seat of disease being overlooked, both clinically and at the

operation. Such a combination of circumstances must be rare, to say the least.

It is worthy of note in connection with the fourth case, that an adhesive peritonitis was set up by the manipulation of a pyloric cancer, and that a movable tumor became absolutely fixed.

Case 5.—Mr. S., a robust looking individual of middle age, presented himself complaining that he had long been a sufferer from a painful affection of the upper abdomen, which had been diagnosed as gall stone disease, in another city, and an operation urged. During the past winter he had subsisted wholly upon fluids, since it was only through limiting his diet in this way that he could make existence tolerable. In spite of all care, however, there was often intense pain after taking nourishment, this being relieved occasionally by copious vomiting. He was a fleshy man, as has been mentioned, and a physical examination revealed little of moment. He had reached the point where he said that life was unbearable in his present condition, so an operation, primarily explorative in character, was undertaken. An examination of the biliary passages and the gall bladder was negative, but upon the anterior surface of the stomach, near the pylorus as well as upon the anterior aspect of the duodenum, were several scars indicating the sites of gastric and duodenal ulcers. A posterior Mayo-Moynihan gastro-enterostomy was made and the patient placed in bed in good shape. A very large opening was made, two rows of continuous sutures being used, but no supplementary entero-enterostomy made. The after-results of the procedure could not have been better; the patient received fluid nourishment as soon as he desired it, complained no more of pain, eat beefsteak and ice cream on the eighth day, was up on the twelfth day and took a four hundred-mile journey on the fourteenth day. His operation was done March 5, 1904; I heard from him six months later, at which time he was eating everything without discomfort, taking sole care of his extensive business interests, and reported himself as being in every way a well and contented man.

Case 6 is one of rather especial interest, since the patient, a woman of middle age, was not only afflicted by a gastric ulcer, but was the subject of gastric tetany in its most outspoken form. The diagnosis in this instance was extremely easy, there being the so-called characteristic symptoms of excess hydrochloric acid, gastric hemorrhages expressed both in stool and vomitus, pain, eructation, tenderness, etc. This patient, in addition to her exquisite tetany, gave the further characteristic history of having been "cured" several times by medical means. When I first saw her she was considerably emaciated and totally unfitted for her occupation of housekeeper. She was living almost solely, as she said, upon fluids, and preferred the pangs of starvation to those which were provoked by her attempts to take food. I operated upon her May 28th; multiple ulcers were located by their scars upon the peritoneal

covering of the stomach; a Mayo-Moynihan gastro-enterostomy, without supplimentery anastomosis, was made, and the patient taken to the ward without any evidence of shock. She never vomited or had a single tetanic seizure after the operation, though there was some gastric pain during the first week. After this she eat everything, gained rapidly in weight, and when I last saw her, about two months after the operation, she stated that she was well in every respect, and, as I afterward learned, was strong enough soon after to take up once more her duties as housekeeper in a family.

Case 7.—The patient was a young man who had been a sufferer from disturbances in digestion for about six years. So great had been the pain from taking food into the stomach that he welcomed any kind of surgical procedure that promised relief, saying that he preferred to risk any danger than remain as he was. In his case, again, all the manifestations, subjective, chemical and physical, spoke for gastric ulcer. At the operation, June 30th, his stomach was found somewhat displaced as well as distended, while on the posterior surface near the pylorus were found adhesions obliterating that part of the lesser peritoneal cavity and marking the site of a gastric ulcer. The Mayo-Moynihan gastro-enterostomy was quickly made, and while the jegenum was open the two halves of a Murphy button were inserted, one into each limb of the attached loop, and the two then pressed together without a suture, thus short circuiting the contents. This operation, consisting of a gastro-enterostomy made with two rows of sutures, an entero-enterostomy made with the button and an abdominal closure in four rows, required exactly forty minutes for its consummation. The young man was absolutely free from pain in a few days after the operation, eat everything within two weeks without discomfort and went home in less than three weeks. Unfortunately, nothing has been heard from the button in this case, though care was taken to introduce the heavy end into the distal bowel.

Three months after the operation he informed me by letter as follows: "I am eating and sleeping well; there are times when I have some pain, but these are getting of less frequency and of less intensity all the time; in fact, for the last week I have been almost free from pain." At this time he had gained more than twenty pounds.

Case 8.—A woman of middle age, gave a history of years of gastric disturbance. She said that it had been very severe for months at a time, and that she had then experienced periods of relief as a result of medical treatment, a statement suspicious in itself of ulcer. I was not surprised to learn from her further statements that the malady had been especially severe for the past few months, that she had a good appetite, but suffered especially from severe pain after eating, that vomiting alone relieved her, that vomiting of blood was common with her and that she was the subject of gastric tetany. She welcomed anything that might give her relief from the pain, which she said was so severe as to

prevent her from indulging a good appetite; so, on July 18th, she was operated upon. The same procedure as in the last case was adopted, namely, the posterior suture gastro-enterostomy was made, together with a supplementary entero-enterostomy with the Murphy button. She complained of severe pain in the stomach for some three days after the operation and vomited twice, but was up for an hour on the fifth day and passed her button on the seventh day. During the second week she ate everything without discomfort, and in the third week was strong enough to help about the heavy work in the hospital wards. She went home six weeks after the operation in the best of condition, though it must be admitted that she had experienced some gastric discomfort while at work in the wards, as referred to above.

In the discussion of these eight cases, I purposely avoid a discussion of the value of a gastro-enterostomy as opposed to some other form of surgical procedure. The malignant cases were none of them amenable to resection, consequently they were subjects for gastro-enterostomy only; of course, the benign cases might have been well treated by some form of plastic operation on the pylorus (Finney, for example); all I desire to prove in this connection is that *a certain form* of gastro-enterostomy is most applicable to these cases if a gastro-enterostomy is done at all.

All of these cases, except the last, were operated upon at St. Anthony's Hospital.

It has been a routine practice to get the patients up early after operation, especially those affected by malignant disease. As W. J. Mayo recently brought out in this connection, many of these patients will never get up again, if they be not allowed to do so in a few days after the operation. I allowed one of mine to sit up on the edge of his bed for a short time on the second day, another to be out in a chair on the fifth day, while a third spent a good part of the sixth day in sitting up; with a good result in each case.

As to the value of the Murphy button in these malignant cases; I had three successes where I used it and one failure where I did a protracted suture operation, though this last named patient was in better physical condition than any of the others when the operation commenced; that is argument enough for me. Give me "a bird in the hand instead of two in the bush;" it surely seems better to use an appliance which will enable one to get the patient into bed with life enough left to tide him over the critical period, even though he may thereby be exposed to certain secondary dangers. The low anterior operation is quickly made with the button, the edges of the visceral wound are held apart and the patient can be nourished as soon as he wakes, "circulus vitiotius" can hardly follow its use, hence a supplementary opening between the two portions of the gut loop is not necessary. I do not use the McGraw elastic ligature in these cases because it does not permit of the very early feed-

ing in which I indulge my patients; a matter of no little importance when it is considered that we are dealing with a surgical shock in a starving individual. Highly as I value the button, I am not blind to the fact that drawbacks and dangers attend its use; of these I have seen but one, however, viz., my buttons rarely come back. In these eight cases, five buttons have been used, three in making the gastro-enterostomy and two in making the entero-enterostomy; the only one which ever returned was one of the two last mentioned.

The operation which I have done on the benign subjects is essentially that described by Moynihan (*The Practitioner*, February, 1904), in which a double continuous suture unites portions of the stomach and gut which are cut off from the rest of the viscera during the operation by rubber covered clamps. The posterior operation is made because it affords the best drainage, and suture is preferred to button because by this means a much larger opening can be made; a necessity when we reflect that gastric drainage is frequently followed by the healing of a pyloric ulcer, relaxation and opening of a spasmodically closed pylorus and growing up of the new opening if it be not made very large. This might all be very well if there were not then a decided tendency for the ulcer to recur. The Mayo brothers do not employ the horizontal stomach incision of Moynihan, but prefer to make a diagonal opening which runs in a line drawn from the cardia to the greater curvature, the viscus being opened as low as possible; hence I have called the combination a Mayo-Moynihan operation. The Mayo idea was originally that bile would be prevented from running into the stomach by anchoring the proximal portion of the jegunum high up on the stomach, but C. H. Mayo told me recently that they had seen three cases of regurgitation in about sixty of these operations, and that they are now making a supplementary opening with the button as I have done in the last two of my cases. I may add that my first two benign cases did just as well after operation as did those in which the entero-enterostomy was made, no sign of a "vicious circle" appeared in any of my patients benign or malignant. All anterior operations were made in front of the colon and all posterior operations behind it.

The time required for the performance of an abdominal operation is, in my opinion, a vital factor, hence I reserve the last word for a consideration of this matter. Of course the benign patients have usually much more resistance than the malignant, but still I am particular to keep the work within reasonable limits even for them. It takes me forty minutes to open the abdomen, make the necessary examinations, do the posterior suture gastro-enterostomy with button entero-enterostomy, and close the abdomen in four layers. This refers to the average patient with whom the utmost pains can be taken, of course, I should simplify and shorten the procedure if necessary.

With a patient the subject of malignant disease, the whole matter is

different, here speed is of vital importance; the simplest procedures possible with merely enough ether for the skin incision, must be the order of the day. I remember that one such operation required just sixteen minutes from the incision to the last stitch, but I am sure one can be done more quickly than this where no complications are encountered.

THE TREATMENT OF CHRONIC NON-SUPPURATIVE OTITIS MEDIA.

By M. A. Goldstein, M. D., of St. Louis, Mo.

In order that a comprehensive outline in the therapy of chronic non-suppurative otitis media may be presented, an empirical subdivision of its stages and development may be offered as follows:

1. *The Early Stage of Hypertrophic Catarrhal Otitis Media.*
2. *Advance Stage of Hypertrophic Catarrhal Otitis Media.*
3. *Sclerosis and Rarefication of the Bony Capsule of the Labyrinth.*

This arbitrary grouping affords us a means of considering measures for relief in the order of their importance and effectiveness. In this most common and intractable form of deafness, it is well to state that the earlier in the stage of the affection treatment is begun, the more prompt and effective will be the results. Much depends on a very careful diagnosis and differentiation of the form and stage of the disease in order that properly selected treatment may be conducted. It is not sufficient simply to establish the fact that the patient has a chronic middle ear catarrh, but to consider every factor which may contribute pathologically and mechanically to the affection. Thus for example, it would be useless to employ repeated Politzeration of an affected ear if there was complete occlusion of the Eustachian tube, either of its pharyngeal orifice or at the isthmus tubæ; it would be also contra-indicated to continue any line of treatment whether inflation, catheterization, intra-tympanic injection, the use of the bougie and the several forms of massage, if it can be distinctly demonstrated that frequent application of such treatment aggravates the case by increasing the deafness, intensifying the tinnitus and accentuating the vertigo. Each case, therefore, after careful examination, must have its course of treatmet planned to best cope with the factors responsible for the affection.

1. *Early Stage of Hypertrophic Catarrhal Otitis Media.* As the nose and naso-pharynx constitute the keystone in the pathology of this form of chronic catarrhal otitis media, our most careful attention should be given to the treatment of this area. The engorged, turgescent, and later, hypertrophied mucosa of this tract, is intimately associated with similar manifestations in the mucosa of the tympanic cavity and Eustachian tube. When this turgescence is sufficiently marked to materially dimin-

ish or entirely obstruct the lumen of the tubal canal, marked retraction of the membrana tympani ensues. If this retraction continues, and a plastic exudate is thrown out from the engorged mucosa, the foundation for the formation of adhesions and ossicular ankylosis is laid.

Our first step, therefore, is to treat the turgescent mucosa. For this, no remedy at our command has proven as effective as adrenalin. Even though the contraction of tissue by the use of adrenalin chloride is temporary, it gives us the necessary opportunity to thoroughly inflate the middle ear; and the increase in the caliber of the tubal canal allows the exudate in the cavum tympanum to thoroughly drain. A recent retraction of the membrana tympani will usually yield to a few inflations of the tympanum either by Politzer bag or catheter. In each instance where inflation is used, the membrana tympani should be carefully inspected at every sitting, before and after inflation; and each change in the hearing distance of the affected ear and the plane of the membrana tympani carefully noted. When exudation is profuse in the tympanic cavity and is not readily drained in this simple way, incision of the membrana tympani may be required. The alkaline nasal spray and saline post nasal irrigation are sometimes effective in toning down the turgescent mucosa. I discourage the use of the nasal douche not only by the patient, but by the physician because of the possibility of unintentionally forcing the washing fluids and mucus into the tubal tract. Astringent applications are often of value in preventing recurrence of turgescence. Silver nitrate (forty grains to the ounce) applied by cotton applicator through the nose to the naso-pharyngeal mouth of the Eustachian tube, often has a beneficial effect. Recently, silver salts, which are less irritating and of better penetrating qualities, have been well endorsed as a substitute for the more irritating silver nitrate. Of these I have used protargol in from ten to twenty per cent. watery solutions, with good effect. The nebulizers and vapor treatment have their enthusiastic advocates. These vapors are used in connection either with the Politzer bag, catheter or mechanical vibrator, and the mucosa of the middle ear tract is thus brought in contact with the nebulized medicament. Camphomenthol, so long and favorably mentioned by Bishop, is generally used in five to ten per cent. solution, in hydrocarbon oil. I have always been an enthusiastic advocate of the hot unguentum petrolatum spray, used in this class of cases with a five per cent. campho-menthol solution, and rendered slightly astringent by a drop or two of ol. gerani rosæ. My usual treatment, therefore, consists:

(*a*) Applying a solution of adrenalin chloride (1-1000) by means of cotton applicator.

(*b*) Inflating Eustachian tube and tympanic cavity by Politzer bag, catheter or nebulizer.

(*c*) Swabbing the pharyngeal orifice of Eustachian tube and the tur-

gescent mucosa of the nasal tract daily or on alternate days, with an aqueous five to ten per cent. solution of protargol.

(*d*) Spraying the nasal cavity anteriorly and post nasally with hot campho-menthol vaseline.

(*e*) To facilitate absorption of exudate in the tympanic cavity and to restore the membrana tympani to its normal plane, I use aural massage of very mild character, and preferably by hand masseur.

Massage in this class of cases should not be continuons in character, but should be of about one-half minute in duration and should consist mechanically, of gentle suction to aid the newly aerated tympanic cavity to restore the membrana tympani to its normal plane. The long-continued massage, with rapid stroke of piston and frequent congestion of cavum tympanum, is here contraindicated.

When this middle ear process is associated with a more advanced nasal pathology, and when hypertrophied turbinals interfere either with proper nasal respiration or with aeration of the Eustachian canal, surgical intervention is called for. Septal deflections or projections and neoplasms obstructing the nasal passages, hypertrophied faucial or pharyngeal tonsils should all receive proper attention and should be removed early in the course of the treatment.

As diathesis is often an important factor in the etiology of chronic catarrhal otitis media, the general condition of the patient should be given careful consideration. Rheumatism, syphilis, tuberculosis, whether acquired or hereditary, have a frequent bearing on these cases, and tonics, alteratives or other systemic medications are often indicated. It may be necessary to advise change of employment for these patients, as certain occupations especially predispose to the development of these catarrhal affections. This is very marked among railroad employes and artisans who work in irritating atmospheres, such as millers, sawyers, grinders, etc. It is also interesting to note another class among who may be mentioned bakers, moulders, stokers, etc., whose nasal and aural mucosa is affected by sudden thermal changes.

I have mentioned some of these data not because they form a part of the systematic line of treatment prescribed for the bulk of these cases, but to emphasize the importance of the general treatment of the case and the necessity for removing some of the remote causes of this affection.

If treatment is begun promptly, and if both the local and general conditions are given careful attention, the prognosis in this early stage of chronic catarrhal otitis media is always favorable.

2. *Advanced Stage of Chronic Catarrhal Otitis Media.*—Under this subdivision we include long-standing plastic exudations and adhesions in the tympanic cavity, retraction in the membrana tympani and fixation of ossicles. In this advanced stage of catarrhal processes, hypertrophic changes have usually taken place both in the nasal passages and in the

tubal and tympanic areas. The turbinal tissues obstruct the calibre of the nares; the hypertrophied mucosa reduces the lumen of the Eustachian canal; the plastic exudate, partially dried, binds down the membrana tympani and ossicles. These are the pathological results in this stage of chronic aural catarrh, and are the problems which confront us and to which we direct our mechanical and therapeutic measures. Inflation is an important consideration; the Politzer bag and catheter were the sheet anchor of the aurist several decades ago, before the introduction of the many forms of aural massage and other devices to attack the membrana tympani and ossicles from without. It is rational to assume that no matter what means may be employed to loosen adhesions either of the ossicles or membrana tympani, permanent improvement cannot be obtained unless the exciting cause, *i. e.*, the thickened mucosa of the nasal, post-nasal or Eustachian tract is successfully dealt with. Inflation should be regularly practiced either daily or on alternate days, for a period of five or six weeks if necessary. Where the use of the catheter indicates that the lumen of the Eustachian tube has been impaired, excellent results may frequently be obtained by the occasional introduction of the whalebone bougie. From my own experience and observations, I would conclude that the Eustachian bougie is of inestimable value in the treatment of this class of cases, not only where there is a decided stricture of the Eustachian tube, but also where the lumen of the tubal canal indicates a much diminished diameter. The bougie in this class of cases should be used systematically and regularly. A bougie of properly selected diameter should be passed the full length of the Eustachian tube, and left in position for a time varying from one to ten minutes. If the patient complains of continued pain while the bougie is in position, it should be immediately withdrawn. The first application of the bougie is usually the most uncomfortable to the patient. When the bougie is withdrawn, and if there are no contra-indications, thorough inflation of the tympanic cavity should follow.

Repeat the introduction of the bougie about twice each week unless unfavorable reaction is noticed. Unless the patient cannot tolerate it, the next larger size bougie may be used, and this plan may be continued and the tubal canal subjected to a gradual dilatation until the diameter of the affected tube is slightly larger than the lumen of the average normal Eustachian tube.

Of the contra-indications for the continued use of the bougie, perhaps the most frequent are a feeling of fullness and dullness in the ear, and an increase in the subjective symptoms.

Of course, the main element of value in the use of the bougie is a mechanical one, and the improvement noticed after its application is due to a clearing and dilatation of the Eustachian tube. The massage of the mucosa and musculature of the Eustachian tube and its stimulating

effect both on the circulation and on the peripheral nerve endings, in loco and reflex, is another valuable factor.

As to the gold electrolytic bougie, I believe the addition of the mild galvanic current with its stimulating effect on the mucous membrane, nerves and muscles of the Eustachian tube, enhances the value of the bougie; but as to its mechanical and electrolytic results, I am not so sanguine, and can see no advantage from it over that to be derived from an intelligent use of the whalebone bougie.

The most interesting development in the mechanical treatment of chronic middle ear catarrh has undoubtedly been the introduction of massage of the drum membrane and ossicles in its manifold forms. Beginning with the Siegle otoscope and Delstanche masseur, there has been an interesting evolution to the present complicated electric aural massage pump, and the creditable efforts of Jackson, Ostmann, Pynchon and others have received due appreciation. Lucæ claims a radical modification in massage treatment by the use of his cleverly constructed pressure probe, whereby the ossicular chain is brought directly into action along its physiological axis.

It is scarcely the province of this paper to discuss the many details of the several forms of massage technique and their advantages and disadvantages. Suffice it to say as far as my own experience is concerned, that I have not been able to ascertain better results from the use of the several complicated machine masseurs than by the use of the simple hand piston pump and pneumatic speculum. Adhesions which are so firm and tough that they will not yield to the hand masseur, are usually not benefited by any other or more complicated machinery, and require perhaps more radical treatment. Recent fixation of the ossicles and slight adhesions may be broken up by repeated massage either with a hand masseur or with the electric massage pump; long-standing adhesions often resist every form of mechanical massage. Of the operative treatment which may be favorably considered in these cases, tenotomy and intra-tympanic severing of such adhesions is the only one which has partly stood the test of time. Excision of the ossicles in ankylosis has been frequently advocated, but the favorably reported results have been temporary, as new cicatrization and fixation generally follows in the wake of such technique. Of the medications to the aural tract to which I have shown partiality in this class of cases, I would especially mention a 10 per cent. solution of campho-menthol in benzoinol, a few drops of which may be injected through the Eustachian catheter and forced by compressed air into the tympanic cavity. I have also used iodine, carbolic acid and glycerine in a similar manner. In fact, I have endeavored to treat the mucosa of the tympanum and Eustachian tube in about the same way I would treat the mucosa of the nares, the only difference being the difficulty in making applications direct to these affected areas.

Internal therapeutics in this stage are of but little value, Climatic conditions often materially influence the progress of chronic middle ear catarrh. The prognosis depends on the degree of deafness and on the ability of the individual case to respond to well-planned systematic treatment.

3. *Oto-Sclerosis.*—In a definitely diagnosed case of oto-sclerosis, it is well to advise the patient that our progressive science and research has thus far been unable to suggest a beneficial form of treatment. Too much emphasis cannot be laid on the necessity of a careful differentiation between the hypertrophic and the sclerotic forms of otitis media chronica catarrhalis.

3858 Westminster Place.

INTERNATIONAL CONGRESS OF ARTS AND SCIENCE, ST. LOUIS, SEPTEMBER 20–24, 1904.

SYNOPSIS OF PAPERS.

HISTORY OF PEDIATRICS—ITS RELATION TO OTHER SPECIALTIES.

By Dr. A. Jacobi, of New York.

Before 1769 there was no institution specially provided for sick children, but in that year Dr. G. Armstrong established a dispensary in London. In 1784 a similar institution was founded in Vienna by Dr. Marstalier. The first and largest child's hospital in Europe, the Hopital des Enfants' Malades, was founded in 1802. In St. Petersburg the Nicolai Hospital was established in 1834 by Dr. Friedburg, and in 1839 the Poor Children's Hospital in Buda Pesth, by Dr. Schopf Merei. Since that time the increasing interest in the diseases of children on the part of humanitarians and physicians and teachers has multiplied children's hospitals. The United States was the last country to participate in these endeavors. The mostly proprietary medical schools did not find pediatric teaching to their advantage, and it took a long time to open the hearts and the purses of the public. The waves of humanitarianism and the demands of science finally overcame previous indolence, and many general hospitals gradually opened special children's wards, while there are pediatric hospitals in all the larger cities. Practical teaching was not extensive, and it took the medical faculties, even of universities, a long time to appreciate the necessity of special and well-regulated bedside teaching. At the present time, however, there is hardly a great medical school that does not give amphitheater or bedside instruction, either in the children's ward of a general hospital or in a special children's or babies' hospital.

The connection of pediatrics with obstetrical practice is very intimate. At the present day still 3 per cent. of all the mature, living fœtuses are not born into post-natal life. To reduce the mortality to that figure, it had taken an increase of knowledge in the art of obstetrics to such an extent that it had become possible by means of Cæsarian section to save the fœtus not only of a living but also of a dead mother, for the fœtus may survive the dying woman. Not a few are born asphyxiated on account of interrupted circulation or of compression of the impacted head or meningeal hemorrhage, which destroyes many babies in the first week of life. And those who are not so taken away live only to become paralytic, idiotic or epileptic. Modern obstetrics has greatly reduced the number of such unfortunate sequelæ of labor. Otology is a spe-

cialty which is confined to a large extent to children. The newly-born exhibit changes in the middle ear which are variously attributed to the presence of epithelial detritus, to aspiration of foreign material or to an edema occasioned by the separation of formerly adjacent mucous surfaces. Pus is found in the middle ear of 75 per cent. of still-born or dead nurslings. Many of the newly-born that die from unexplained fevers perish from septic material, or its toxins, absorbed in the middle ear or in the intestines. The great vascularity of the middle ear and the accessibility of the Eustachian tube in the infant renders otitis media very frequent. Difficult hearing is very frequent in the young. As early as 1886 Berzold found that of 1,900 children, 25 per cent. had only one-third of normal hearing. Whether deaf mutism is the result of consanguineous marriage cannot be definitely asserted. The majority of cases are caused by cerebral or cerebrospinal inflammation. Many of the congenital and most of the acquired case are preventable.

In dermatology some of the problems should be studied on ante-natal and post-natal lines. The congenital absence of small or large parts of the skin is probably due to certain amniotic adhesions, seborrhœa and the mild form of lichen to rapid development in the second half of intrauterine life of the sebaceous follicles. In pemphigus of the palms and soles syphilis was recognized, in eczema constitutional disturbances of the nutrition was the underlying cause. A dermatologist who does not know embryology or pedology, or a pediatrist who does not know dermatology is anything but a competent and trustworthy medical practitioner. The diseases of the muscles interest the pediatrist, the surgical specialist, the orthopedist and the neurologist to an equal extent. Torticollis proves that neither the pediatrist nor the orthopedist nor the general surgeon could raise the claim of ownership.

The relation of pediatrics to forensic medicine is very close. Unexpected death of the newly-born and the causes of sudden death in all periods of life have been studied to such an extent as to render negative results of police investigation and of autopsy reports less numerous from year to year. In London there were annually 8,000 inquests; one of every fourteen of this number was on an over-lain infant. In the etiology of sudden death the most difficult questions could not be solved except for the valuable observations that have been made on the young. Forensic medicine has to guard the interests of all, and there is nothing in medicine more difficult than to discover the cause of death. The best knowledge of the advanced practitioner, of the pathologist, the chemist, the bacteriologist and the obstetrician should be at the service of the public. Every European country understood this, and acted upon that knowledge. In this country only Massachusetts has broken away from the coroner's institution, which was a fit authority for a backwoods municipality, but is no longer for a cultured people of eighty millions.

Now and then even an expert or a body of experts does not succeed in discovering the cause of death. What should be said of a system which now and then does discover the hidden cause of a sudden death? When the New York state legislature, half a year ago, passed a bill abolishing the no longer competent office of coroner it was vetoed by the mayor for the reason that the new law was not perfect. It was not pronounced perfect—no law ever was perfect—but the absurd incompetency and anachronism of the coroner's office was perfect.

One of the most important questions which concerns at the same time the practical statesman, the humanitarian and the pediatrist is that of excessive mortality of the young. Forty per cent. of infants who die before the end of the first year die in the first month of life. This is to a great extent preventable. Statistics from large obstetrical institutions prove that only 50 per cent. of women are capable of nursing their offspring for even a few weeks. What, then, could be said of the refusal of the physically perfect and well situated women to nurse their infants? There are not "400," but 400,000 who prefer their ease to their duty, their social functions to their maternal obligations, who hire strangers to nurse their babies, or accept the claims of the infant food manufacturers, or are tempted by their own physicians to believe that cow's milk casein and cow's milk fat can be changed into woman's casein and fat; that the live stomach is like a dead laboratory bottle, that the warmth of the human bosom and that of a nursing flask are identical and that cow's milk, when it carries the trade mark "Certified" or "Modified," is just as good as mother's milk. The nursing question is a social and economic one, which, like so many other problems, confronts modern civilization. Modern therapeutics, both hygienic and medicinal, have gained much by the close observation of what is permitted, or indicated or required in early age. One of the main problems in infant therapeutics is to fight anemia, which is a constant danger in the diseases of the young.

The advantages of electricity as a remedy have been realized by obstetricians, pediatrists and general practitioners. There is no more powerful remedy for asphyxia and atelectasis of the lungs than the cautious use of the interrupted galvanic current.

The domain of preventive therapeutics has expanded with the increased knowledge of the cause of disease. and both immunizing and curative sera will play a more beneficent part from year to year. Among the probabilities of future therapeutical efforts may be counted the prevention of congenital malformations. Knowledge of the physiology and pathology of the nervous system of all ages would be defective without the lessons derived from the fœtus and infants.

The young are the makers and the owners of the future, and their physical, intellectual and moral condition will decide whether the globe shall be more criminal or more righteous. For their education, train-

ing and capabilities the pediatrist, as the representative of medical science and art, should become responsible. Medicine is concerned with the new individual before he is born, while he is being born and after. Heredity and the health of the pregnant mother are the physician's concern. The regulation of factory legislation and the prohibition of marriage of epileptics, syphilitics and criminals must be considered the preventive measures to secure a promising progeny. The physician should be the legitimate advisor to the judge and the jury, and a seat for him in the councils of the republic is what the people should demand as their right.

PSYCHIATRY—ITS RELATION TO OTHER SCIENCES.

By Dr. C. L. Dana, of New York.

The branch to which the psychiatrist turns in allied sciences with expectation of help and co-operation is, first of all, clinical medicine and clinical pathology and physiological chemistry. They enable him to make complete records and to secure the profoundest knowledge of all the types of alienation which come under his observation. As an assistance in such work, a sound knowledge of the elementary principles of psychology is needed. Psychiatry expects but little from gross pathological anatomy, a great deal, however, from what might be termed teratological anatomy, or a study of congenitally defective conditions not only of the nervous system, but of the circulatory and secretory organs. And here, again, clinical microscopical pathology and chemistry must be associated with the work. Psychiatry is a practical science. It deals with the administration and custodial care of the patients, and expects help from the various sciences included under the head of state medicine and economics, which work for good government and the improvement of the social conditions of a nation. Since psychiatry, like all medical sciences, concerns itself with prevention of disease as well as care and cure, it looks for help to those same sources in procuring the prevention of insanity. Therefore, help is expected from the education of the children and of the people as to wise methods of living, and especially of marrying, to offset or at least reduce the detrimental effects of urban life, of the use of alcohol and the spread of venereal disease. In the further development of psychiatry, help is expected from anthropology and allied sciences, and intimate relations to law and forensic medicine should continually be held. By these means it can be hoped that finally psychiatry will reach that degree of perfection when the increase of the insane will be reduced one-half. Then it might be expected that all the insane patients could be earlier recognized as such and promptly and more effectively treated, so that the percentage of cures would be at least one-third higher. The psychiatrist could then

recognize the type of the disease and outline the proper treatment as well as give a rather definite prognosis.

The insane who are acutely or curably ill can be properly treated in suitable, easily accessible hospitals, and more serious cases placed in larger and more remotely accessible institutions or private houses, while the hopelessly insane should be cared for in colonies. There is no more precious thing in a social organization than a sound mind, and no more serious hindrance to social progress than a defective one. It is to be hoped that all the sciences which by any means could contribute to interpreting the phenomena of mental disease, to checking its prevalence and to palliate or cure the suffering of the victims would feel a special inspiration to secure these ends.

THE HISTORY OF THE DEVELOPMENT OF SURGERY.

By Dr. Frederic S. Dennis, F. R. C. S., of New York.

The history of surgery during the last hundred years furnishes one of the most remarkable chapters in the progress of science. But little more than one hundred years ago there were enacted scenes in the name of surgery that were more terrible than any of the tragedies of the Inquisition. The influence that had the greatest effect on the development of surgery was the discovery of anesthetics. Then came the discovery of the value of antiseptics. Nobody could measure the influence that this discovery had in the decrease of human suffering. The third great power in the development of surgery was the discovery of modern therapeutics and diagnostic aids. The discovery of the Roentgen ray ranks second only to the discovery of anesthetics and antiseptics. The value of the x-ray in the treatment of disease is equal to its value as a diagnostic agent. The fourth inflence of great importance was the development of old and the discovery of new operations in surgery, such as trephining, suturing wounds of the heart, operations for gastric ulcer and gastric cancer, operations for umbilical hernia, for the relief of appendicitis, for the relief of intestinal obstruction, laparotomies for typhoid perforation, etc.

A most important discovery was the operation of ovariotomy, by McDowell, of Kentucky. It was the foundation for the abdominal surgery of today. There was much disapproval of the operation by the profession and the laity, and inasmuch as McDowell's first patient died, he was pointed out as a murderer. But from a mortality of 100 per cent. it has developed until a series of ninety-three cases have been reported without a single death. In the treatment of compound fractures, the mortality has dropped from 68 per cent. to 1-7 of 1 per cent. The progress of surgery has been uninterrupted. In other arts and sciences something had been lost during the centuries, but in surgery it was en-

tirely different. It was so completely a modern science that it did not rely upon anything in the distant past. There is no surgical disease in which the mortality has not been reduced. Nowhere has greater changes been wrought or more brilliant results accomplished. There is but little opportunity for improvement in the field of therapeusis and anesthesia, and but few operations for the surgeons of the future to discover. It is a profession that but a hundred years ago was crude and unprogressive. The greatest discoveries have been made by Americans, and an answer to the question, what has been the inspiring motive, is to be sought in the habits of the people. Within the past decade America, through the force of her national greatness, morally, intellectually and physically, had come to rank second to none among the powers of the world, and her surgery has kept pace with her progress in other lines.

THE PROGRESS IN MEDICINE DURING THE PAST CENTURY.

By Prof. William S. Thayer, Johns Hopkins University.

Medicine of the Middle Ages was largely a matter of faith; it was a condition in which reason was heresy. But the clouds of medical tradition slowly gave way and the study of the natural sciences was pursued more eagerly than ever before. Clinical instruction was introduced. There was almost an entire lack of diagnostic methods, diagnosis was based largely on gross clinical manifestations and was necessarily vague. Treatment was almost wholly empirical. In 1789 the French Academy pronounced medicine a conjectural art. But soon came the introduction of vaccination, and a little later anatomy and physiology were placed on a scientific basis. Clinical diagnosis became more and more of an art. The microscope opened up new fields of study and a great reform in medicine followed the introduction of cellular pathology by Virchow. The sphymograph, thermometer, stomach tube and various means of studying the blood pressure gave assistance in diagnosis. Then came the development of physiological chemistry and advances in knowledge of the nervous system, which gave powers in diagnosis that seemed almost magical, so that in many fields conjecture has given way to exact knowledge. Though there has been an attempt at prophylactic methods in past decades, it was not until the development of bacteriology that prophylaxis became scientific. The first result of that knowledge was the development of antiseptic surgery. While prophylaxis and diagnosis were being removed from the field of conjecture, and the possibilities of surgery were rapidly widening through the discovery of anesthesia, the power to combat disease remained much as it was in the beginning of the century. The investigation of the problem of immunity by Ehrlich opened up a wide field. The widespread investigation of the different phases of immunity has given in a few short years

a mass of knowledge the importance of which is not yet fully appreciated. Besides giving the power of producing a greater or less degree of active immunity, the modern theory of immunity did away with many of the old methods of treatment.

One hundred years ago physicians were sweating, bleeding and purging their patients, and therapeutic measures have been replaced by scientific preventive and curative measures. To meet the manifold problems of the day the physician's training must of necessity be very different from what it was one hundred years ago. Medicine, no longer resting on a basis of philosophical investigation, stands upon the firmer foundation of science. Today the student is taught methods, while a hundred years ago he was taught to theorize. Some people claim that there is in this country a tendency to extend the academic training into years that should be given to practice, and that the course has become so long as to shut out many a man who might be of value to his profession. To avoid that it was attempted to exclude the humanities. It has been proposed to substitute a study of the classics by some of the sciences. But such a policy is not desirable. A study of the classics gives a man training hard to obtain in any other way. One might search long among the great names of medicine and it would be hard to find one unfamiliar with the classics. There should be less complaint of time wasted in giving a man the experience necessary to render him a safe and competent practitioner, for the public in most instances recognizes the man of experience. In considering the general education of many of the men entering the best schools of the day, it should be remembered that a large part of the physician's success depends upon his personal influence, his power to persuade and inspire, and the man of thorough education is the more capable one. If students were better taught and earlier, the time would not be lost and there would be gained for medicine men of greater power.

CLINICAL REPORT.

PARTIAL EXCISION OF THE SHOULDER AND KNEE JOINT—A REPORT OF TWO CASES.

By Harold W. Jones, M. D., of St. Louis.

Although by no means rare, excisions of the large joints are always of interest, especially after a few months, when the question of ultimate functional activity arises. The two following cases have been reported,

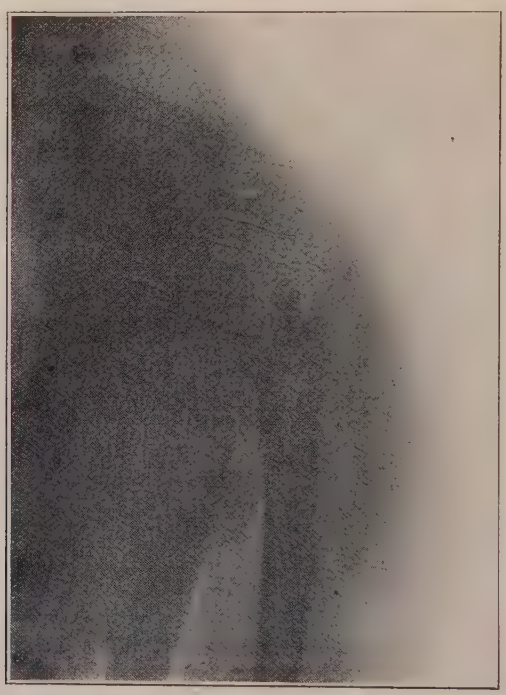

Fig. 1.

not without some hesitancy, since they are in themselves so meagre a contribution, simply as an addition to the literature upon the subject.

Case 1.—The patient was a woman of forty-six, well developed. Five months previous to operation she received a dislocation of the right shoulder, which, however, was not recognized as such, and remained unreduced. Under anæsthesia an attempt was made to reduce it. This not only failed, but, notwithstanding considerable care being exercised,

a fracture of the humeral head was produced, which was not discovered, however, until operation. Manual reduction failing, operation was resorted to. The head was so far internal that it was found impossible to reduce the dislocation, or, in fact, even to free the head, which lay to the inner side of the pectoralis minor muscle, so the shaft was chiseled through at the neck and the head removed later. The end of the shaft

FIG. 2.

was then placed in the glenoid cavity and the muscles sutured and the wound closed. The arm was abducted as far as possible and both the arm and chest enclosed in a plaster dressing. In sixteen days the dressing was removed, and, the wound having healed entirely, passive motion was begun. This was attended with some pain, but the very severe pain which the patient had suffered before the operation was absent. In four weeks all dressings were discarded and the patient encouraged to exercise the arm as much as possible. At the present time, about five months after operation, the patient has practically complete passive motion; all active motion, except in abduction, is perfect, while in abduction active motion is about one-half the normal. A heavy pail of water can be carried with ease, and the only thing the patient cannot do fairly well is to dress her own hair. Looked at without comparisons, the result

is by no means perfect, but compared with the patient's previous condition (one of no motion in the shoulder and continuous pain) it is a fairly good result, and fully justifies the operation.

Case 2.—This patient, a girl of twelve, fell a distance of sixty feet over a cliff, fortunately escaping with her life. Besides other injuries, she received a compound fracture of the right femur at the lower end. At the time she was first seen, several days after the injury, on account of infection, it was found necessary to open the knee joint. The fracture was seen to be a "T" shaped one, and the condyles were so badly shattered that their removal was necessary. This was done subperiosteally, and the lower end of the femur was sawn evenly across. It was then attached to the upper end of the tibia my means of a heavy chromic gut suture. The suture was tied, bringing the end of the femur in contact with the periosteum of the removed condyles. The joint was then irrigated and freely drained. A plaster spica was then applied, going to the toes with an interrupted space at the knee. The wound healed in six or seven weeks, and at the end of that time passive motion was begun, and since flexion had already begun to appear, a modified caliper splint was applied with a joint at the knee. Four months after operation there is a firm joint without deformity, about forty-five of motion and about one and one-quarter inch of shortening, while the child walks perfectly well upon the limb. The x-ray shows a partial regeneration of the condyles.

These two cases certainly serve to emphasize the fact that where one joint surface only is removed, it is perfectly possible to obtain a useful and movable new joint, and that as a rule ankylosis is not to be feared where one articular surface is left intact.

ATYPICAL FORMS OF MIGRAINE.

By M. W. Hoge, M. D., of St. Louis.

Certain points of resemblance even of relationship between epilepsy and migraine have long been noted and frequently discussed, but that we not infrequently meet with variations from the normal type of attack is more generally recognized in relation to epilepsy than to migraine.

I desire to report two cases of such atypical forms of migraine, the first of which may be considered to correspond to so-called "partial epilepsy," the second to the epileptic status.

N. M., female, unmarried, æt. twenty-two, nativity, Ireland; family history negative.

The patient has enjoyed good health except for painful menstruation when about sixteen, for which she received local treatment.

For the past three or four years she has been subject to attacks of nausea and vomiting at not quite regular intervals, but usually from

four to six weeks apart, and seemingly somewhat related to over-exertion or imprudence in diet; that is to say these factors have at times preceded attacks.

The attacks come on rather rapidly, sometimes awakening the patient from sleep. There is severe nausea and vomiting, first of undigested food, afterwards of a sour-tasting, watery fluid, of a yellowish color, and finally retching, without anything coming up, unless a little mucus or water that has been swallowed.

There is constant pain in the epigastric region, which becomes worse during vomiting or retching.

During the attack the temperature is normal, the skin cool and moist; the patient feels prostrated, and answers questions absently and with apparent effort. There has never been diarrhœa during or immediately after the attack, nor pain of consequence below the epigastric region.

The attack, if not treated, usually lasts from twelve to twenty-four hours, but seems to be shortened by morphia. Its spontaneous subsidence is gradual and followed by sleep. The next day she feels dull and languid, without much appetite, but by the third day is as well as usual, and continues so until the next attack, the appetite and digestion being good, though bowels inclined to be constipated.

Questioning elicits that some of the attacks have been accompanied by headache, but the nausea and gastric pain are so much more distressing that the patient has not paid much attention to this symptom.

A hypodermic of ¼ gr. morphia is sufficient to allay the disturbance and produce sleep, but if given early a second or third dose may be required before the attack subsides.

I saw her in two attacks, on October 8 and December 11, 1901. She soon after changed her residence, and I have not seen her since.

In this case the headache, usually the most conspicuous symptom in migraine, and which gives it its name, was in most attacks absent, and the nausea and vomiting constituted the principal manifestations.

The symptoms correspond quite closely to those of so-called gastroxynsis, and I believe that most cases of the latter are examples of atypical migraine.

Probably less often met than the above is the "status hemicranicus," or migrainous status, described by Moebius, Fere and others. It is considered to consist of a series of subintrant attacks of the ordinary type; that is to say, before one paroxysm has subsided another begins.

The following case is illustrative:

Mrs. C. consulted Dr. Green, who, finding nothing about the eyes definitely related to the condition, referred her to me. Patient seen May 23, 1904. Married, æt. 30; family history negative. Health prior to present illness good. Hearing defective, which Dr. Shapleigh ascribed to middle-ear catarrh.

The patient was born and reared in Iowa, but about nine years ago removed to Montana and resided in a mountain valley, several thousand feet above sea level.

She began to become "nervous" soon after arrival in Montana, and after about a year's residence there began to have what she called "bilious attacks," consisting of headache, nausea and vomiting; "saw sparks of light before the eyes."

The attacks at first came once every three or four months, and lasted three or four days. The headache was more severe on the left side, but not limited to it.

Gradually the attacks became more severe and frequent, and are now described as occurring once a month, and lasting about two weeks, with variations in intensity, though she is confined to bed during the entire attack, and is able to take and retain very little nourishment.

During the interval she has fair appetite and digestion.

She still sees flashes of light during the attack, and describes a tonic spasm of the muscles of the left hand and arm, recently, also of the right, during the most severe paroxysms of pain.

I saw her only in the interval. There was then slight tenderness on pressure over the left occipital nerve, but aside from this no sensory or motor anomalies.

EDITORIAL COMMENT.

A BRIEF PLEA FOR SUCCINCTNESS IN SCIENTIFIC PAPERS*.

Medical journalism fairly teems with instances of interminable and padded articles, which are as platudinous as they are irrelevant to the subject under consideration. Such articles bear the imprint of verbal incontinence and mental sterility. Science is so broadened at the present day that the average physician is compelled to absorb his mental pabulum in a pre-digested state. He has neither time nor inclination for a dyspeptic contribution by an astigmatic mentality. It has been wisely observed that "speech was invented to conceal thought," and if this aphorism be true, then verbal redundancy bespeaks an impoverished mind. Many important and interesting medical observations are sepulchred in words, and only words, and the contributor is so intoxicated with the exuberance of his own verbosity that he defeats the object of his contribution. Others deluge their articles with unimportant details, or employ language so obscure that an exegetic commentary should be annexed. The judicious employment of technicalities abets abridgment of expression. Ornate composition, while desirable, cannot be expected from a mind that reasons on prosaic lines. In this age of specialism, human attention cannot disperse itself and must discard digressional contributions. There is an essence to every concept, and we want that and not its associate accidents. When we write of an ulcer, why mention solution of continuity, soreness, granulations, &c.? The intelligent mind appreciates such concomitant conditions and the word ulcer suffices. We solicit in contributions that which typifies the thing and not ourselves. Our contributions should be teleological and not a concentration of self diluted by-facts. We are all inclined to think in circles and express ourselves by the same circuitous route. It is difficult to eliminate the personal equation, hence our articles are employed as vehicles for parading our triumphs, but never our defeats. It is the educated physician who is willing to admit his mistakes. Contributions pertaining to mistakes made in practice are equal in importance to like contributions embodying our triumphs and possess the additional advantage of being impersonal. Such contributions will assist us to avoid Scylla and Charybdis.

THE MULTIPLICITY OF TEXT BOOKS.

In the presence of the apparently ceaseless stream of text books which issues from the medical publishing houses, great and small, throughout the country, the unfortunate being whose duty it is to review each and

* Contributed by Albert Abrams, A. M., M. D., of San Francisco.

every one begins to grow a bit weary and is tempted to cry out *Cui bono?* It appears that the medical man does not regard his existence as quite justified until he has been at pains to deliver his teeming mind of all the facts of the particular subdivision of medicine which he professes. The opportunity is a glorious and tempting one indeed, especially to him who rides his hobbies hard. Here is a chance, than which none other is to be compared, to "wallow in the intense inane" of one's ego. We hesitate to ascribe to our many verbose colleagues merely commercial motives and prefer rather to believe that the American author has yet to learn the immortal virtue of a noble reticence. The question arises, Is the writing of a text book the ultimate goal of the American physician's literary and scientific ambition? When we realize that since the beginning of the year no fewer than seven new text books and manuals have appeared in one specialty alone (ophthalmology), to say nothing of new editions and reprints too numerous to mention, we are inclined to answer in the affirmative. No *magnum opus* engages our colleague's attention. He is devoting himself to writing a "new" (?) text book, which will require the closest scrutiny to distinguish from its predecessor. We are, it appears, rapidly approaching the time when the text book will be made—in America—by certain fixed rules. And let him who scorns the popular formula reap well-merited oblivion.

In this connection an opinion of Dr. Hugo Muensterberg, of Harvard University, a German whose keen and discriminating analysis of "American Traits" is well known, is singularly *apropos*. He finds that the American student, although capable by training and native capacity to attack the unsolved problems of his domain of knowledge, is, alas, too often content to produce as his only work a rehash of the elements of his subject in the form of a text book for undergraduate students.

DR. MILLICAN AND THE ST. LOUIS MEDICAL REVIEW.

An interesting event in local medical journalism is the assumption by Dr. Kenneth W. Millican, of New York, of the editorship of the St. Louis *Medical Review*. Dr. Millican has been associate editor of the New York *Medical Journal* for the past six years. The *Interstate Medical Journal* extends to Dr. Millican a cordial welcome and wishes him every success in his new venture.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

The Relation of Acute Infections to Arterio-Sclerosis.—THAYER and BRUSH (*Journal American Medical Association*, September 10, 1904), made a study of the cardiac and vascular complications and sequels of typhoid fever, and found a possible casual relation of this disease to sclerotic changes in the arteries.

One hundred and eighty-nine individuals who had had typhoid fever under their observation were examined months and years afterwards. It was found that among these individuals the radial arteries were palpable in a surprisingly large proportion of cases as compared with control observations on healthy persons who had never had typoid fever. Between the ages of ten and fifty, 48.3 per cent. of the old typhoids showed palpable radials as compared with 17.5 per cent. among ordinary healthy individuals.

The average systolic blood pressure was materially higher in every decade among the old typhoids than in control observations on healthy individuals who had typhoid fever.

The average size of the heart was larger among the old typhoids when considered in groups arranged by age, according to decade, than in figures obtained from examination of the typhoid patients at the time of admission to the hospital.

As a result of the analysis of the records of 4,000 patients entering consecutively the medical wards of the Johns Hopkins Hospital, it was found that the percentage of palpable radial arteries is materially higher among those individuals in whom there is a history of heavy physical labor and of the use of alcoholic stimulants than in the remaining cases.

The percentage of palpable radial arteries is higher among those cases presenting a history of severe infectious diseases than among those in which the history is absent or among those in which a history of no casual factor could be obtained. The proportion is, however, far below that in the case of work or alcohol.

Rheumatism appears to be the acute infection after which the percentage of palpable vessels is highest, and next to rheumatism typhoid fever. They believe that the main etiologic factor in the development of the hyperplastic thickening of the intima, which constitutes so important an element of arterio-sclerosis, is overstrain of the vascular walls, continued or intermittent high tension, whatever its ultimate cause may be.

X-Ray Therapy in Leukemia.—CAPPS and SMITH (*Journal American Med. Assn.*, September 24, 1904), review the literature of the x-ray treatment of leukemia, and find reports of eleven well-verified cases. All but one of these belonged to the spleno-myelogenic type. In every

instance the splenic tumor decreased in size, in three cases becoming barely palpable. The leucocytesin all cases excepting one diminished in number.

The action of the x-ray seems to be of two kinds: (*a*) A local influence on the spleen and glands, characterized by an inflammatory reaction and later by a breaking down and disintegration of the gland tissue; (*b*) the formation of toxins which have an inhibitory action on the manufacture of leucocytes by the bone-marrow. It is well known that the acute infections occurring in leukemia, such as pneumonia, septicemia or terminal infections, tend to inhibit the production of white corpuscles and often cause a reduction in the size of the spleen. The x-ray toxins may be compared to these.

In no recorded instance of either lymphatic or spleno-myelogenic leukemia has the spleen tumor entirely disappeared.

With the discontinuance of the x-ray, the disease after varying periods tends to reassert itself.

Death may take place when the glands and spleen are smallest, and when the white count is normal.

Acute cases seem to receive no benefit from x-ray.

The chronic form of lymphatic leukemia responds to the x-ray even more promptly than the spleno-myelogenic type. In every instance the glands rapidly softened and dwindled to small proportions.

The x-ray holds the process in abeyance, but is probably not curative.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Suture Material with Delayed Resorption.—MIYAKE (*Beitraege zur Klinischen Chirurgie.* Band, xliii; Heft, 2).—The article opens with a resume of the disadvantages inherent to the use of silk, silk-worm-gut, etc. The main disadvantage in the use of cat-gut lies in the fact that it is absorbed too soon, no matter what the method of preparation be. It suggested itself to Prof. Mikulicz that something could be accomplished by tanning the various absorbable materials commonly used for sutures and ligatures. This the author makes the subject of his article. He compared nerves, strands from the pleura of the horse, tendons and catgut, finding that the last named was in every way better fitted to the uses above mentioned. Tanned cat-cut, after sterilization by the method of Hofmeister, remained strong enough in the tissues for sixty-five days to fulfill its function; when the wound suppurated, the same material was absorbed in less than thirty-two days. Tanned gut caused no tissue changes, did not grow stiffer as a result of the process and was in no wise inclined to deteriorate as a result of this treatment. Extract of quebracho was used for the tanning, since it contains 15 to 22 per cent. of the chemical which is represented by 10 to 12 per cent. in tannin. This new material is the product of an oak which grows in the Argen-

tine republic. The entire process is as follows: 1. Tanning of the gut for twenty-four hours in a 5 per cent. watery solution of quebracho extract; then wash a short time in water. 2. Sterilization according to Hofmeister.

Imperforate Œsophagus in a New-Born Infant.—Villemin (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxx., No. 25).—This infant regurgitated everything it swallowed, and the cause was apparent when it was seen that the sound could only be passed 12 cm. below the superior ginguval border. At the same time the baby would be almost suffocated every time it tried to swallow. On the third day a gastrostomy was made, but whenever fluid was poured into the stomach the partial suffocation was repeated and fluid was ejected from the mouth to the surprise of the onlooker. On the seventh day the child died from a double pneumonia, and at autopsy all the interesting chain of symptoms was explained by the following pathological findings:

There was an œsophagus of four cm. length, at the lower portion of which there was an opening into the trachea just above the bifurcation of the latter.

The Sensory Distribution of the Fifth Cranial Nerve.—Cushing (*Bulletin of the Johns Hopkins Hospital*, July–August, 1904),—This extensive article represents the most exhaustive study which has been done upon this subject; it represents an immense amount of work and an observation of the very unusual number of twenty-six cases in which the gasserian ganglion had been removed. This subject cannot be determined by animal experimentation since the verbal interpretation of the sensations experienced by the subject are indispensable to a proper understanding of the same. In man the only over-lapping of the fields of trigeminus and cervical nerves, in the mandibular portions at least, are for sensations of pain, though it must be added that these are often not expressed as such by the patient. Cushing seems to have been the first to demonstrate that the field of the fifth nerves extends into the external auditory canal; he has shown that this goes to the extent of about one-half the drum membrane as well as the anterior wall of the canal. A study of these cases has confirmed Cushing in his opinion expressed earlier, that the taste fibers from the tongue run independently of the fifth nerve. He accounts for the fact that the tongue seems not to lie in the middle line, by the fact that the motor root of the nerve is always destroyed where the ganglion is completely removed, thus the pterygoid muscles on the same side are paralyzed, the jaw is deflected to that side and the tongue left asymmetrical as far as the lower jaw is concerned. The dura mater is rendered completely insensitive in the region involved by the operation, as was shown in one case treated by the open method.

The Pathology of Open-Pneumothorax and the Fundaments of My Procedure for Its Prevention.—Sauerbruch (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Band xiii., Heft. 3).—In this lengthy and highly scientific article are carefully expounded all the finer reasonings which have been deduced by the author during his experiments. A short article which was reviewed in these columns recently told some-

thing of the process of operating upon both thoracic cavities at once, while the chest of the animal was encased in an air-tight chamber from which the air had been partially exhausted. There is nothing absolutely new in principle added to the matter now; the author goes much more into detail as to the technique employed, and at the same time gives a most exhaustive description of the effects upon respiratory, circulatory, and nervous symptoms of the entrance of normal air as well as of rarified air into one and both chest cavities at the same time. The article is too long and too technically written to be suitable for a review here; it must be read in the original by one interested in trying these experiments.

The Prevention of the Effects of Pneumothorax by Increasing the Air Pressure Within the Bronchi.—BRAUER (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Band, xiii., Heft, 3).—It is a matter of more than passing interest that there should appear in the same number of the same publication an article which directly opposes the reasoning of the preceding article in every point. Brauer aims at the same result as Sauerbruch, but attempts to open both pleurae at once and prevent ill-effects by simply keeping the lungs filled with oxygen forced into the trachea under pressure instead of diminishing the atmospheric pressure upon the outer surface of the lungs while the chest is open. This author remarks that it is a difficult and costly matter to construct a vacuum chamber into which the operator and the body of a large animal can be brought. On the other hand he considers it quite simple to tie a canula in the trachea and through it to inject enough oxygen into the lungs to keep an animal alive. He has counteracted the effects of pneumothorax in another way, i. e., by placing the animal's head in a sort of air-tight box and forcing in air by means of an ordinary air pump. His proposition seems most reasonable, that it matters little which of these two things we do, so long as we keep up a certain difference between the air pressure within and that without the lungs; that is, it matters little whether we blow air into the bronchus or exhaust it from the chest cavity, so long as we simply keep up such a difference between air inside and outside the lung that it cannot collapse. The author goes deeply into the effect of partially obstructing the lesser circulation, and concludes that the heart can adapt itself to very considerable impedimenta; this is a matter of the greatest moment to the surgeon, when he considers the resection of large portions of lung tissue, etc. It is astonishing to the author to find how little oxygen is indispensable to the support of life, and how little lung tissue is necessary. In the apparatus which the author has constructed it is possible to administer the anæsthetic in any desired amount or strength without taking the head of the animal out, and without danger of such an amount of the drug becoming mixed with the air contained as to render the procedure dangerous.

The "Y" Operation in the Performance of Cholecyst-Enterostomy for Cancer of the Pancreas.—MONPROFIT (*Archives Provinciales de Chirurgie*, Tome, xiii, No. 8).—This is the first recorded case in which the application of the principle of Roux's gastro-enterostomy has been applied to the formation of an opening between the gall-bladder and the jejunum.

The patient was a woman who had suffered from terrible pains in the upper portion of the abdomen for about a year. About four months previous to the time of operation she became very icteric, and there were all the signs which accompany complete obstruction of the common duct, the gall-bladder being plainly made out as distended. At the operation this biliary obstruction was seen to be due to a tumor of the head of the pancreas, hence an anastomosis was made between the gut and gall-bladder in the manner above mentioned, sutures being used throughout. The jejunum was divided at a point 50 cm. below its origin, the upper segment being implanted into the side of the other about 15 cm. below the site of the union between the lower segment and the gall-bladder.

The immediate effects of the operation were all that could have been desired, but the woman died ten days later of a toxemia of hepatic origin. At the autopsy the suture line was seen to be perfect, while the peritoneum was seen to be free from inflammation. Secondary tumor (cancerous) nodules were found in the liver.

The Formation of an Artificial Vagina by Intestinal Transplantation.—BALDWIN (*Annals of Surgery*, September, 1904).—The procedure here advocated is that of making a new opening in the perineum and then bringing a loop of ileum or sigmoid down for a mucous membrane lining. This is to be done by "switching out" a section of gut which is left attached to its mesentery; the two ends of gut are to be closed blind, or one of them sewn around the cervix if a uterus be present. Then the convexity of the loop is to be drawn into the perineal opening, sewn there, and a vaginal outlet established. After it has healed in place the septum between the two limbs of the new vagina is to be obliterated by pressure forceps.

Wiping Out the Choledochus.—KEHR (*Zentralblatt*, 1904, No. 28).—Kehr is no doubt the best known German writer and operator as far as the surgery of gall stones is concerned. He has instituted new procedures almost without number, hence the surgical world gives more than ordinary attention whenever he brings out something fresh. In the present instance he had opened the common duct, but was unable to release stones therein, so he made a duodenotomy and pushed a forceps through the papilla of Vater backward through the duct until it presented behind the duodenum, when he grasped a piece of gauze in the forceps and by withdrawing it succeeded in wiping out the duct and removing small stones and sand. In one case it was necessary to repeat this five times before the duct was clean. Three cases treated thus were cured, and no duodenal fistulæ seen.

Surgical Asepsis.—LONGUET (*Le Progres Medical*, Tome xx, No. 37).—From the very interesting series of articles by this author on this subject in general, there is taken for this review only that which pertains to sterilization by the use of the vapors of anhydrous liquids under pressure. The following volatile liquids were used: Absolute alcohol, chloroform, acetone, xylol, turpentine, etc., with a result that anthrax and tetanus were killed, germs as well as spores, by all of them, when used under pressure for forty-five minutes at a temperature of 140 de-

grees C. (288 F.). After comparing all the properties of the fluids used, the author gives the palm for general usefulness to xylol. His experiments were done by sealing his cultures up in small glass tubes and then exposing the same to the above mentioned temperature in the autoclav.

Factors in the Mortality of Appendicitis.—DEAVER (*The Journal of the American Medical Association*, Vol. xliii, No. 13).—Great stress is laid upon the use of common sense in eliciting the history of the attack as well as upon the use of the palpating hand of the surgeon in making a diagnosis, without which the mortality will, as a matter of course, be high. It is the duty of the doctor at large to instruct the people in the danger of using opiates until someone has had a chance to make a diagnosis. Every acute abdominal attack must be regarded as serious, and the possibility of an appendicitis be borne in mind, and no other diagnosis made until the physician can be sure that it is not appendicitis. Early operation is to be regarded as a conservative rather than a radical procedure, since we are dealing with dangers which cannot be definitely known until the belly is open. The author operates in every case seen early, if there be not a spreading peritonitis; these may be mild or severe. Great stress is laid upon the danger of intestinal obstruction following the formation of the adhesions which constitute "walling off." Many of Deaver's statements may be regarded as radical by many, but no one can arrogate to himself the right to neglect a warning from one who has had Deaver's extensive and successful experience in this matter.

Peritonitis Originating from the Biliary Passages.—EHRHARDT (*Archiv fuer Klinische Chirurgie.* Band lxxvi, Heft 3).—Experiments have proven that bile from the healthy biliary passages cannot produce peritonitis, as has been proven by accidents which have happened to the human subject. Where inflammation is set up by bile, the latter must contain germs, of which the most common are the coli communi, though it must be added that no less than thirty-five cases exist in the literature where a gall bladder ruptured after typhoid ulceration. It is a singular fact that the presence of bile in the peritoneal cavity has a tendency to lessen the effects of all kinds of toxines. An example of this was furnished the author when he found, experimentally, that a certain culture of coli communi killed cats within one day after injection into the peritoneum, but that the same result was possible in no less than five days after the admixture of bile with the germs. Clinically we notice that a peritonitis resulting from a rupture of a diseased gall bladder has much less intensity, tends more rapidly to become encapsulated, and altogether to give a better prognosis than do the usual varieties. All of these results are attributed by our author to the fortunate admixture of bile

---

Cold Abscess of the Tongue.—MERCADE (*Gazette des Hopitaux*, September 8, 1904).—The patient was a little girl of eight years, who presented an abscess about the size of a pea upon the dorsum of the tongue, half way between the two ends of the member, and near the median line of the same. It had developed slowly without pain, and

without the child being otherwise suspected of a tuberculous affection of any kind. When it was opened the pus presented all the gross characteristics of tuberculous material, but a bacteriological examination failed to reveal germs of any kind. The case is reported because of the extreme rarity of anything of its kind.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

The Use of Camphor in Pulmonary Tuberculosis.—W. KOCH (*Berliner klin Wochenschr.*, 1904, No. 18).—Some years ago Alexander reported cases of pulmonary tuberculosis favorably influenced by hypodermic injections of camphorated oil. During the past five years, Koch has used this procedure in a large number of cases of phthisis with satisfactory results. While not inclined to pronounce it a specific in this disease, he believes it to be a valuable aid to its hygenic dietetic management. At first he used the method of Alexander. On four successive days one gram of ol. camphorat was injected once daily; then came an intermission of ten days, whereupon the injections were resumed. The results were very good. The temperature soon fell to normal and remained there for some time; the sputum at first increased and the expectoration became easier; the night sweats ceased, often permanently; the appetite improved, the patients gained in weight and nearly all slept more quietly. Advanced cases, as was to be expected, showed only a temporary improvement, but some of the cases in the second, and especially in the first, stage were entirely cured.

Recently the writer has replaced the camphor injections by means of the percutaneous application of the drug in as nearly as possible the same dose. In consideration of the volatility of the camphor, he arranged the formula of his ointment so that about 0.4 grams of camphor were rubbed into the skin each time. This camphor ointment, the formula for which is not completely given, may be bought ready made under the name Prævalidin, although it would seem that any one could improvise a similar formula. It is rubbed into the skin daily, using, in turn, each arm, each thigh and the back. The results are said to resemble those obtained by the subcutaneous injections. In one case the prompt cessation of a hemoptysis could apparently be ascribed to a single enunction.

The expectorant action of the camphor lead the writer to try it in cases of emphysema and bronchitis. Here, too, the enunctions were followed by results similar to those obtained in phthisis. The expectoration was at first greatly increased with diminished effort, but soon gradually ceased.

Thyroid Extract in Puerperal Eclampsia.—W. G. BALDOWSKY (*Wratschebraja Gaseta*, 1904, No. 1; *Die Therapie der Gegenwart*, August,

1904).—Baldowsky reports two cases of eclampsia in which he used the extract of thyroid gland first recommend by Nicholson. The first case was that of a multipara who had passed through six normal pregnancies. Her seventh was also entirely normal up to the two last weeks, when, after a fall on the back of the head violent headache, vomiting and diarrhœa ensued. The evening before the patient entered the hospital the first attack of eclampsia set in, followed by five others at intervals of one or two hours. The patient was put under chloroform and given a hypodermic of morphine. Three quarters of an hour later she had another attack. More chloroform and morphine were given, but the attacks did not cease even when chloral hydrate and other narcotics were administered. The writer therefore tried thyreoidin, of which he gave 0.3 grams. The next attack came more than two hours later. The patient received another thyreoidin tablet, whereupon the eclamptic attacks ceased permanently. The patient was discharged as cured four days later, and was delivered spontaneously at the normal time. In this case the favorable results cannot be exclusively ascribed to thyreoidin as other medicaments were also used.

The second case received only thyreoidin with the same favorable result. The patient was a primipara who, on the second day after the first labor pains, had her first eclamptic convulsion. The latter lasted two minutes; consciousness did not return, however, until after twenty minutes. An hour later a second, still more violent, attack occurred. The third came on two hours later, after she had been transferred to the hospital. A thyreoidin tablet of 0.3 grams was given at once. Two hours later there was another convulsion, whereupon another tablet was given. There were no more attacks, and two hours later the child was born spontaneously. The post-partum period was normal.

In our opinion neither of the above cases shows beyond question that thyreoidin has the power to cut short puerperal eclampsia. In the first case the usual narcotics were used and the effect observed may well be ascribed to them. In the latter case the attacks came on every two hours uninfluenced by the drug. As the uterus succeeded in emptying itself two hours after the last convulsion, the cessation of the seizures can more readily be ascribed to this fact than to the virtues of thyreoidin.

The effect of the drug upon the renal secretion is not, however, without interest. The first patient upon entering the hospital passed 100 ccm. urine, containing 0.4 per cent. albumen, with a specific gravity of 1017. Three hours after the administration of thyreoidin, 300 ccm. urine, with a specific gravity of 1010 and a trace of albumen, were passed. Thereafter a marked polyuria set in, 2765 ccm. of urine, with a normal freezing point, being passed in the next twenty-four hours. In the second case, also, an increased secretion of urine was noted after the administration of thyreoidin. It is to this diuretic effect of thyreoidin in eclampsia that both Nicholson and Baldowsky ascribe its therapeutic value. The latter comes to the following conclusions:

1. Under the thyreoidin treatment (three or four tablets of 0.3 grams daily) the eclamptic attacks cease.
2. The disturbance of the renal function is stopped.
3. It is well to give narcotics in addition to the thyreoidin, as thereby both the intensity and the frequency of the attacks are diminished.

The Treatment of Pyloric Stenosis by Means of Thiosinamin.—A. HARTZ (*Deutsch Med. Wochenschr.*, 1904, No. 8).—Many observations, especially those of Lengemann, Lewandowski, Juliusberg, Friedlaender and Roos, seem to show that thiosinamin possesses the power of acting upon scar tissue wherever it may be situated, softening and stretching it, so that the disturbances produced thereby disappear. Ordinarily, it has been used on external scars, although Roos advocates its use in pleuritic thickening. Hartz's case was one of undoubted benignant pyloric stenosis, due to the formation of scar tissue following gastric ulcer that had produced retention and its accompanying symptoms for twenty-eight years. In October, 1903, Hartz began treating the case with thiosinamin injections, using a 15 per cent. alcoholic solution, and injecting this subcutaneously into the back. He began with eight drops, but rapidly rose to sixteen drops, his usual dose. Occasionally he injected twenty-four drops. Twenty-three injections were given altogether, at the rate of two a week. After the ninth injection the appetite had improved, the food passed more readily into the duodenum, and gastric lavage showed the fasting stomach to be quite empty. Thereafter all the gastric symptoms improved rapidly, and an entire cure resulted. The drug is always quite harmless, and while the injections are moderately painful, they are not unbearably so. Inflammation, or even redness at the site of injection, was never observed.

Aspirin in the Symptomatic Treatment of Inoperable Carcinoma.—J. RUHEMANN (*Deutsch Med. Wochenschr.*, 1904, No. 23).—The analgesic value of aspirin has long been recognized, especially in rheumatic affections. The writer, however, reports five cases in which the administration of aspirin enabled him to dispense with morphine injections. In one case of carcinoma of the stomach with excessive pain, morphine in doses of ¼ grain had to be discontinued because it produced violent nervous excitement; 15 grains of aspirin, however, calmed the patient and always produced quiet sleep. For the relief of pain, Ruhemann is accustomed to give 7½ grains of aspirin every half hour, without, however, exceeding a total dose of 30 grains. For the production of sleep he gives a single dose of 15 grains at bed-time. In no case, even after constant administration for many months, did he remark either a lessened effectiveness of the drug or any ill after-effects. Just why aspirin should have a stronger analgesic activity than equivalent doses of sodium salicylate is not clear; experience, however, seems to show that this is a fact.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

About the Motility and Emigration of the Lymphocytes of the Blood.—WLASSOW and SEPP (*Virch. Arch.*, Vol. 176, Heft 2).—After reviewing the literature on the subject the authors report the results of their own investigations. Taking care not to change the osmotic equilibrium of the blood, they examined at 37-38° C., fresh blood and were able to observe slight changes in the cells, especially the larger ones. However, not all of the cells showed these changes. A locomotion was never seen. At 40° a more active protrusion and retraction of processes could be found and at 44° an active locomotion occurred like that of the polynuclear leucocytes, continuing even after lowering of the temperature. From these observations, it follows, that lymphocytes under normal conditions are immotile; when heated they become motile, but only at temperatures at which other leucocytes die. If certain substances, as peptone, lecithin, etc., were added, even at lower temperatures motility was seen, that means under the influence of the disturbance of the normal chemic conditions. This motility observed under the circumstances reported, cannot be considered as due to the normal activity of the cells: by direct observations under normal conditions so far a motility or power of emigration has not been established. These are the conclusions of the authors, that are fully in concordance with the views of Ehrlich. Whether or not pathologic conditions may influence the lymphocytes in the same way in which the authors influenced the latter by their method, is not known, so that the observations do not altogether exclude a possibility which seems to be in the opinion of many observers a very frequent occurrence.

Secondary Inoculation From a Chimpanzee Infected with Syphilis,—O. LASSAR (*Berl. Klin. Woch.*, 1904, No. 30).—As reported in this journal previously, Lassar has succeeded, the same as Metschnikoff and Roux, in infecting a chimpanzee with material derived from a fresh case of human syphilis, and to produce typical syphilitic lesions and phenomena. Histologically the lesions correspond completely to the picture found in man. In this paper the author discusses the result of the inoculation of a second chimpanzee with virus taken from the first one (the character and nature of the pathologic material used is not given.) The experiment was made three months after the first animal was infected. The result was the development of a typical primary lesion, later on followed with the appearance of papules on different parts of the body, that were not distinguishable from those of syphilis. Unfortunately the animal died of miliary tuberculosis, so that further investigation in this series was prevented. The autopsy did not reveal any visceral changes of syphilitic origin.

It seems that this result can be accepted as a demonstration of the fact, that the infection of the second animal was brought about by a

virus growing and multiplying in the first one inoculated with human virus. Whether this discovery will serve the purpose of obtaining a serum against the "bacillus" of syphilis, is, however, a question that Lassar would have done well to omit from his paper.

Toxines and Antitoxins.—Ph. Madsen and L. Wahlbaum (*Centrlbl. fr. Bacter.*, Orig. Vol. 36, No. 2).—This paper by Madsen and Wahlbaum, like previous ones by Arrhenius and Madsen on Tetanolysin and Diphtheria toxin, attempts to establish the relations of ricin to antiricin by a formula complying with the law of Guldberg and Wage, is only mentioned to connect with it a few remarks on the permissibility of their method. Nernst has convincingly demonstrated that it is wrong to apply the formulas obtaining for reversible reactions to colloids and that the method in which these authors arrive at the results of their calculations is faulty. On the other side Sachs and v. Dungern have brought the absolute proof that the reactions between diphtheria and tetanus toxin on one hand and their antitoxins on the other, cannot be reversible like those of definite substances. Mixtures of toxin and antitoxin, to which the former is added in fractions are more toxic than when the toxin is added at once. The experiment by the authors that a neutral mixture of diphtheria toxin and antitoxin, allowed to diffuse into gelatine makes the gelatine toxic, means nothing; we know by Morgenroth's researches that the complete binding of the two substances to each other takes twenty-four hours. In fresh mixtures which were used by the authors alone, free toxin and antitoxin are present. Their experiment, therefore, only shows that the toxin is more easily diffusible than the antitoxin. The experiment repeated with mixtures twenty-four hours old, results negatively. This could not be so if the reaction would be reversible. Here a dissociation ought to occur, growing in extent, as the diffusible toxin is gradually removed by the gelatine.

The Typhoid Epidemic in Beuthen, Silesia, in 1900.—(D. Noetel, *Zeitschr. f. Hyg. u. Infect. Krankh.*, Vol. 47, Heft 2).—That the ordinary rate of typhoid morbidity is of an endemic character, due to contact infection, and not epidemic, due to water or milk contamination, has become more and more evident during the last few years. That, however, real epidemics of great extent can also be caused merely by contact, was so far unknown. Noetel describes in this paper such an epidemic, that raged during the summer of 1900 in the county of Beuthen (Germany), comprising a population of 65,000 inhabitants and showing in a few months a sudden typhoid morbidity of 927 cases, with eighty-four deaths. The investigations instituted by the government officers, of which Noetel gives a resume, excluded with absolute certainty, that water or milk caused the dissemination of the disease. The careful location of the single cases, however, showed that they were arranged in groups, leaving uninfected areas between them. It was furthermore found, that the disposition of fecal material and refuse, especially in these foci, was altogether inadequate and that the chances for contact with this material were present everywhere. There was no difference in the water supply of the infected and the immune areas. A proof of the correctness of this assumption was practically given by the rapid check in the progress

of the epidemic by the most exacting sanitary supervision. This called a halt for about one month, when the usual aggravation (by direct contact) seen after the subsidence of typhoid epidemics made its appearance. By this time a return to the old slovenly methods had taken place, and the consequence was a second outbreak of tremendous proportions. By enforced sanitary measures this, too, was soon checked.

The paper should be read in the original, as it contains in a most demonstrative way a great mass of evidence, definitely showing the correctness of the views held by Koch and his followers on the fight against the typhoid pest.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

The Etiology of Kraurosis Vulvæ.—PH. JUNG (*Zeitsch. f. Geb. und Gyn.*, Vol. 52).—This paper forms a very interesting contribution to the question of kraurosis vulvæ As known, the following tissue changes have been accepted as characteristic for this rather rare disease of the vulva: Sclerosis and edema of the corium, disappearance of the papillæ, small cell infiltration in the deeper layers of the corium, degeneration of the elastic fibres and atrophy of the rete malpighii and the stratum corneum. The author subjected to a careful microscopical examination pieces of skin taken from the vulvæ of patients who did not offer any symptoms nor naked-eye changes pointing to a kraurosis. Nevertheless, he found almost exactly the changes considered characteristic of kraurosis. He concludes, therefore, that kraurosis vulvæ is not a clinical entity, but the final stage of chronic vulvitis.

Chorio-Epithelioma Following Tubal Pregnancy.—G. HINZ (*Zeitschr. f. Geb. und Gyn.*, Vol. 52, 1904).—Hinz describes a new case in which a chorio-epithelioma developed from a pregnant tube. Patient, thirty-three years of age, showed the symptoms of an ectopic pregnancy five weeks after her last menstruation. Laparotomy was performed and the right pregnant tube extirpated. Three weeks after the operation she began to complain of bleeding and pain in the right side of the lower abdomen. Two weeks later she was examined internally and a round tumor of about the size of a small fist was detected, attatched to the right cornu of the slightly enlarged uterus. It was suspected that a new extrauterine pregnancy had developed in the stump of the tube and again laparotomy was performed. A few days later patient began to vomit, the liver increased in size, patient became jaundiced and began to fail in strength. Exitus occurred seven weeks after the operation. The lungs, liver, abdomen and pelvis contained masses which looked like blood-clots. On microscopical examination this tissue was found to be typical chorio-epithelioma.

[There are only four or five cases of this kind known in literature,

and the question arises whether this number would not be considerably larger, if in all cases of so-called recurrent ectopic pregnancy the extirpated tumor would be examined microscopically.—Editor.]

Vesicles of Hydatiform Mole Constitute a New Growth of Epithelial Nature—Vesicular Mole and Chorio-Epithelioma are Histologically Identical.—P. Sfameni (*Arch. Italiennes de Biologie.;* rev. *Brit. Jour. of Obstetr. and Gyn.*, August, 1904).—As early as 1871 Ercolani demonstrated that vesicles of a hydatiform mole may carry pedicles on both of their poles, which pedicles were in direct association with epithelium only. This showed the absolute impossibility for the parenchyma of a villus to enter into the composition of a vesicle. Ercolani's deduction was that a vesicular mole represents a peculiar neoplasm arising in the epithelium of chorionic villi.

Sfameni has noted a transition from the epithelial covering of a vesicle to the stellate cells which have been regarded as myxomatous tissue. He states that the interior of a vesicle is not connective tissue stroma, but epithelium modified by more or less rapid necrosis. The cells of Langhans' layer and the syncytium are two elements which are now regarded as one and the same, the former arising from the latter, and to this it may be added that the "stroma" is derived from one or the other, or both, the entire vesicle, in fact, being epithelial. The one essential element in the formation of a vesicle is syncytium. The evolution of a vesicle starts with the syncytium. In this epithelial structure two processes become manifest: (1) An external proliferation or progression; (2) an internal proliferation, followed by degeneration or retrogression. The result is a hollow vesicle in which mesoblastic tissue has formed no part. The syncytium is the one essential element in its formation, and this is true, wherever this vesicle is found—in a mole or a chorio-epithelioma. The finding of villi in the latter and its secondary deposits is an error of interpretation, due to degenerated epithelium being mistaken for myxomatous connective tissue.

The writer concludes this paper by stating that Veit's deportation theory is shown to be an absurdity. Admitting an epithelial origin for syncytium and Langhan's cells, Sfameni promises to advance proof that the source of syncytium is the *maternal uterine epithelium.*

Pregnancy and Thievery.—Fischer (*Allgem. Zeitschr. f. Psychiatrie.;* rev. *Muenchn. Med. Wochenschr.*, No. 30, 1904).—The writer reports the medico-legal opinion in the following case: A farmer's pregnant wife, twenty-eight years of age, stole at four different places spoons, cloth, linen and chickens respectively. In a preceding pregnancy she was extremely irritable, had pain, a tremor, headache, vomited very often, suffered from insomnia and somnambulism. During the present pregnancy she was continually nauseated, all the reflexes were increased, she was very irritable, had a tremor and was depressed. Patient stole the above mentioned articles always at the time of the missing menstruation. The medical expert's opinion was that it is extremely probable that the patient was in a non-responsible condition when she committed these thieveries.

Injuries of the Rectum During Gynecological Examinations.—KELLY (*Wiener Klin. Therap. Wochenschr.*, No. 29, 1904).—A methodic rectal exploration in all gynecological examinations has of late been extensively propagated by a number of gynecologists. Kelly calls attention to the fact that there seems to be a certain danger of a perforation of the rectum into the peritoneal cavity during such examinations. The writer reports four cases of the kind, and describes how such an unfortunate accident can be prevented by using the necessary care in introducing the finger and by always supporting the elbow of the exploring hand. The accident seems more liable to occur in old women.

The After-effects of Forced Mechanical Dilatation of the Cervix During Labor.—H. v. BARDELEBEN (*Archiv. f. Gynœkologie.*, Vol. 73, 1904).—Six patients in whom during labor the Bossi dilator was used were examined by the author five months after confinement. In all cases more or less serious lacerations of the cervix were found. Considering the large percentage (75 per cent.) in which deep lacerations of the cervix eventually lead to gynecological troubles the author finds one more cause against the use of the Bossi or similar dilators.

Slow or Forced Delivery in Eclampsia?—A. SIPPEL (*Zentralbl. f. Gyn.*, No. 27, 1904).—Sippel at previous occasions defended the conservative views of Ahlfeld, Pfannenstiel, etc., in dealing with eclampsia during labor. The fact, however, that he lost three of his patients within a short time induced him to be more radical. In this paper he discusses the reasons why a more active procedure seems preferable. In all the discussions and investigations of the etiology of eclampsia only one point was apparently positively settled, namely, that eclampsia is a product of pregnancy, is dependent upon the presence of a fetus in the uterine cavity. It, therefore, seems very reasonable to remove the fetus if after a trial with conservative measures the symptoms do not improve. The one question to be settled by further observations is how long we can wait before resorting to the radical interference.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Middle Ear Complications of Measles.—NADOLECZNY (*Jahrbuch fuer Kinderheilk*, August, 1904, *Erganzungsheft*), reports the results of his studies of 100 cases of measles, with reference to the question of middle ear complications.

Fifty-nine per cent. of the cases showed acute inflammatory ear trouble, and the other cases were not all free from some disturbance of mild degree. As a result of his studies, and after a study of the literature, he comes to the following conclusions:

Acute middle ear catarrh, and acute purulent otitis media are the commonest complications of measles.

Ear complications usually occur within two weeks of the appearance of the eruption, though they may come on in the prodromal stage, sometimes during desquamation. Ear complication should, therefore, not be considered as sequelæ of measles.

The development of middle ear trouble in measles is often favored by abnormal conditions of the upper air passages and of the lungs. Care in the treatment of such conditions is, therefore, necessary. Nasal irrigation is usually contraindicated. Distinct subjective symptoms usually mark the onset of these complications being, as a rule, the ordinary symptoms of acute otitis media.

As a rule, the otitis of measles is benign, and there is a tendency to spontaneous cure. This is, however, not always the case, and the severest results of otitis are sometimes seen in these cases.

Through early prophylactic treatment it is often possible to limit the exudation in the middle ear. Even where perforation of the drum has occurred, the process runs its course in about three weeks on the average. Relapses are only rarely noted.

Neglected cases often terminate very badly.

Some of the Less Commonly Recognized Manifestations of Rheumatism in Childhood.—BURNET (*Brit. Jour. Chil. Dis.*, September, 1904) believes that heredity plays an important part in the etiology of rheumatism, citing several cases in support of this view.

The author believes that acute pharyngitis in childhood is in very many cases rheumatic, and advocates careful examination of the heart in these cases, with rest in bed until all doubts are set at rest.

Certain cases of pneumonia in childhood, are undoubtedly due to the rheumatic virus, while appendicitis is a rheumatic affection in not a few cases.

Again, psoriasis scarcely ever occurs in childhood save in rheumatic subjects, and the marked benefit which results from the administration of anti-rheumatic remedies in the psoriasis of childhood, is certainly significant.

A condition which the author calls gastro-enteric spasm, in which the child complains of acute gastric pain after meals, and has urgent calls to stool, is very often rheumatic in origin.

Many rheumatic children complain merely of a pain in the side or in the upper part of the chest, and this sign ought not to be disregarded. Indeed, definite rheumatic manifestations are often wanting altogether. Many children show simply very marked nervousness and irritability, with more or less distinct muscular twitchings. These signs are often the precursor of a true chorea, which, according to Burnet, "is nothing more save muscular movement, superadded to a pre-existing state of nervous unrest."

With reference to treatment, the author thinks the best results are had from the use of large doses of salicylate of soda, or aspirin. To a child of five, ten grains of either remedy may safely be given every four hours for several days. In addition, calomel should be used freely.

The local use of the ice-bag in heart affections is of great value. It

should be carefully wrapped in flannel, and, if necessary, slung up so that its weight does not rest on the yielding chest wall of the patient.

If convalescence is retarded, small doses of cod liver oil should be given, and the administration of anti-rheumatic remedies continued.

The Treatment of Anemia in Children by Iron-Vitellin.—CARPENTER (*Brit. Jour. Chil. Dis.*, August, 1904) believes that as a result of experimental and clinical studies on the subject of iron medication, the desiderata of a satisfactory iron compound for clinical use, may be thus formulated.

The iron must be an organic form, it must be unchangeable by the gastric juice, and its clinical effects on the proportion of hemoglobin, red corpuscles and the subjective symptoms of anemia must be appreciable.

The author has been using for some time past, iron-vitellin (a compound of iron in definite chemical combination) in hospital and private practice, and believes that this remedy is destined to occupy a wide field of usefulness as a tonic for children. The various secondary anemias of children were very often quickly benefited by its use. Five typical case reports are appended. The author holds that in the treatment of secondary anemia in childhood, too much stress must not be laid on mere increase of the red cells and of the percentage of hemoglobin. Even after the use of the various inorganic iron preparations, such increase may often be noted, while the child continues to suffer from the symptoms of anemia. According to the author's observations, this is not the case where iron-vitellin is used. He believes that this drug produces prompt increase in the red corpuscles and hemoglobin; that it improves the appetite without disturbing digestion or producing constipation. He finds that it is acceptable to the palate and that it has a general influence on nutrition which he has never observed in the use of any other form of iron.

He has found that the dose ordinarily suggested for children (one or two teaspoonfuls in water) is often too small. The dose may often be increased advantageously to a half ounce three times daily.

The Feeding of Infants at the Time of Weaning.—LEMARIE (*These de Paris*, 1904, *Rev. Mens. des Mal. de l'Enf.*, July, 1904).—The necessary alimentation of the nursling should be established in accordance with the teachings of physiological chemistry. It should comprise a ration of maintenance and one of growth. At the normal period of weaning, this alimentary quotient would be about 72 calories to the kilogram of body weight. This theoretic figure merely represents an average, however. The coefficient of nutrition of each infant must be considered. The weight curve, the condition of the stools and the general state of health of the child are all factors to be considered in fixing the alimentary regimen.

In bottle-fed infants, it is well toward the seventh month to replace part of the milk by the yolks of one or two eggs, or by cream, in order to avoid an overplus of proteids in the diet. The weaning of a bottle-fed infant, properly speaking, takes place toward the tenth month.

From this time on infants should receive, in addition to the yolks of eggs and milk, pap and bread and butter.

The alimentary regime of a child of a year, weighing about 10 kilo-

grams, would comprise: Milk, 300 grams, 10 per cent. sugar of milk solution, 400 grams, two dishes of pap or of bread and butter, and the yolks of two eggs. This regimen would be based on the weight and not on the age of the child. If the child is underweight, this amount might be somewhat increased.

Under the influence of various pathological conditions, some of them very mild, such as difficult dentition, slight attacks of bronchitis, eczema, etc., the weight curve may undergo marked oscillations. The amount of food may not always be increased under such circumstances; indeed, it may even be necessary to temporarily diminish the quantity of food, even during a period of loss of weight. The weight curve alone is not an altogether satisfactory index of the condition of development, or of the correctness of the kind and amount of the food to be given. The condition of the stools affords information of great value in this connection.

ORTHOPEDICS.

IN CHARGE OF

NATHANIEL ALLISON, M. D.

Paralytic Deformities and Their Modern Treatment.—J. JACKSON CLARKE, M. B. (Lond.), F. R. C. S. (*London Practitioner*, September, 1904).—The first principle in the treatment of these cases is to see that there is no unnecessary interference, and when operative treatment is decided upon it should only be carried out with full knowledge and mastery of any instrumental after-treatment that may be necessary.

The great advantage gained by cases of paralysis when Stromeyer gave them the benefit of subcutaneous tenotomy some seventy years ago, has, in the writer's opinion, been increased many-fold by the use of open operation In fact, he leans to the substitution of old blind subcutaneous work by the more rational method of seeing what one is doing.

There is a wide range of paralytic conditions which demand surgical interference; these are: (1) Cerebral paralysis, especially infantile spastic paralysis; (2) spinal paralysis, *e. g.*, compression-paraplegia, infantile paralysis or polio-myelitis, spinal spastic paralysis, locomotor ataxy, Friedreich's disease, progressive muscular atrophy, etc.; (3) deformities arising from lesions of the peripheral nerves, *e. g.*, of the upper root of the brachial plexus in "obstetrical palsy," peripheral neuritis, etc.; (4) deformities caused by ischæmic paralysis, in which nerve endings, muscles and fibrous tissue are all concerned. To mitigate these conditions we have the following procedures: (1) Massage and manipulations; (2) simple instrumental guidance; (3) tenotomy and myotomy; (4) plastic operations on tendons; (5) arthrodesis; (6) partial craniectomy, laminectomy, costo-transverse-ectomy and other operations on the spinal cord; (7) nerve suture and nerve transplantation.

The writer gives a series of cases which illustrate well the advantages of some of these operations. He gives a method of elongating the tendo Achilles by making a Z-shaped division subcutaneously. He speaks hopefully of nerve operations, saying that they should hold first place in our thoughts as being directed nearer to the anatomical seat of the lesions, but more time must pass before we may give judgment as to their exact value. In infantile spastic paralysis especial attention is called to the fact that operation is not alone indicated to relieve deformity, but is also needed in cases where deformity is not present, but where the spasticity prevents a gait approaching normal or prevents exercise. In spastic paraplegia he reports good results following the excision of portions of tendons.

Report of Experiments to Determine Whether Plaster of Paris Contracts or Expands in Setting.—J. TORRENCE RUGH, M. D., Philadelphia (*American Journal Orthopedic Surgery*, August, 1904).—Twenty-four experiments were made using all the varieties of gauze and the different kinds of plaster of Paris. Water at different temperatures, with salt and without salt. In all cases the plaster expanded slightly; though the amount of expansion is very small, it settles the fact of no small importance to the profession at large that there is no cause for fear that a pressure sore will result from a plaster bandage contracting.

The Final Results in Tendon Transplantation.—PROF. DR. HOFFA, Berlin (*American Journal Orthopedic Surgery*, August, 1904).—In order to achieve good results in tendon transplantations four conditions are necessary: (1) Perfect asepsis. (2) Prevention of hemorrhage. (3) Healthy muscle material. (4) The tendons must be united under certain tension. The old operation, that of Nicoladoni, and the new operation of Lange should go hand in hand, one does not exclude the other. To get good results one must have a large operative experience with these cases; success depends also on the amount of tension put on the tendon, that the muscle may regain its normal tone and elasticity. Deformities must always be corrected before the tendon grafting is attempted. And the after-treatment is of the greatest importance. Apparatus should be of such a character that it may be removed to allow exercise and massage, electricity and gymnastics. Dr. Hoffa states that he showed last April to the German Surgical Society fifty cases that had been operated upon by him, and that even his German colleagues, who are inclined to be skeptical, were astonished at the good results obtained.

Surgical Procedures for the Relief of Infantile Paralysis of the Lower Leg.—JOHN DANE, M. D., and DAVID TOWNSEND, M, D., of Boston (*American Journal of Orthopedic Surgery*, August, 1904).—Fifty consecutive cases were taken from the records of the Children's Hospital in Boston. These cases had some years before undergone operations for the relief of paralysis, and an attempt was made to find out the present condition of the limbs as regarded their usefulness for support and locomotion. Fourteen of these could not be traced, but a table is given of

the forty operations performed on the remaining thirty-six. The conclusions from this table are as follows:

1. That in all cases where the peroneus tertius or extensor longus hallucis were transplanted in order to restore the balance of muscular powers, the transplanted muscle has failed to hypertrophy to an extent sufficient to cause benefit. (Eleven such cases fail to show any improvement.)

2. That simply shortening the extensor tendons in cases of equinus, even aided by transplantation of the flexor longus hallucis, is of no permanent benefit. (Two operations, both followed by relapse.)

3. That where the peronei are inserted into a paralyzed tendo Achillis for the relief of calcaneous the result is usually disappointing. (Five operations, the result in four being distinctly poor and in one only fair.)

4, That in cases where the peronei are transplanted to the inner side of the foot for the correction of valgus deformity the results are slightly better, but there are relatively few successes. (Six operations; two poor, two fair, two good.)

5. That where a portion of the tendo Achilles is transplanted to the extensor side of the foot for the relief of equinus the condition is distinctly improved. (Two operations, that in which the tendon was joined to the common extensor giving a stronger foot when it was united with the anterior tibial.)

6. That the best results following tendon transplantation were in cases where the whole or a portion of the anterior tibial was transferred to the outer side of the foot for the relief of equino-varus. (Three operations, showing two good results and one fair.)

7. That astragalectomy uniformly yields a good, useful foot. (Three cases, all successful.)

8. That the results of arthrodesis of the tibio-astragaloid joint are, as a rule, excellent. (Nine operations, with seven good results, a stronger foot resulting than where astragalectomy had been done.)

It would seem, therefore, that tendon transplantation may in certain cases yield a satisfactory result, the selection of cases should be careful and that a majority of cases will obtain stronger, more useful feet by the use of astragalectomy or arthrodesis.

The Treatment of Crushing Injuries Involving One Articular Surface of an Interphalangeal Joint.—JOHN G. SHELDON, M. D., Telluride, Colorado (*N. Y. Med. Jour.* and *Phila. Med. Jour.*, July 23, 1904).—In the American Text Book of Pathology, page 709, the following statement is made: "After resection of a joint the ends of the bones may become united by fibrous or bony tissue; bony resorbtion and apposition may in time remodel the ends, which become covered with connective tissue and a new joint is produced, the lining of which may even secrete a synovial fluid." The writer states that he has not seen this to be the case, but he presents five cases where one end of a phalanx at a joint was crushed, the joint surface of the other phalanx was not injured, a resection of the injured bone and a moulding of the end to fit gave a useful articulation. The main object of the paper is to point out that amputation in these cases is seldom necessary.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

A Case of Brain Tumor Following Trauma.—LIEFMAN (*Berl. Klin. Woch.*, September 5, 1904).—This is a report of a case of brain tumor in which the etiological relation between the development of the symptoms pointing to the presence of a growth in the brain and the existence of a preceding tumor seems well established. The importance of trauma as a cause for tumor of the brain has always been a much mooted question, Bergman especially being very skeptical in regard to it. It is necessary that all such cases should be carefully studied, so that the relationship may not be ascribed to coincidence. Case, March, 1900, a patient received a blow on the head, as the result of a fall. In December the first appearance of symptoms, among which were severe headache and convulsive movements in the arm. Soon followed convulsive movements in the left arm and leg, with periods of unconsciousness lasting two hours. An examination showed the presence of optic neuritis and other indications of the presence of a cerebral growth. At the operation a sarcoma was found on the motor center lying beneath the scar of the old head injury. This latter point seems to be the essential proof of the relation between the trauma and the subsequent development of the tumor.

Blood Serum Treatment of Epilepsy.—GERHARTZ (*Neurologishes Centralblatt*, No. 18, 1904).—There have appeared several accounts of work done to substantiate the work of Ceni in regard to the good results in the treatment of epilepsy by serum obtained from the blood of epileptics. None of the results appear to prove the contention of Ceni. This is a further negative piece of work. Two epileptics were injected with a serum obtained in part from their own blood and in part from the blood of other epileptics. Each one received ten injections. No special influence was observed either during the time of the injection or a half a year after the treatment. There was no effect upon the physical state of the patients, a result which Ceni observed in his cases. The importance of these negative results is not very great on account of the small number of patients experienced upon, yet the question of the influence of serum upon the course of epilepsy approaches nearer a decision by work of this kind even if the material is very limited.

An Account of the Care of the Insane in Belgium, and Particularly in the Colony of Gheel.—MASOIN (*Journal of Nervous and Mental Diseases*, No. 9, 1904).—Attention is called to this article because it is the first readily accessible account in English of the famous colony of Gheel which, ever since the middle ages, has been given up to the treatment and care of the insane. The account here referred to gives a short history of the origin of the colony and of its subsequent development under the control of the state in the line of what must be considered the most

rational method of treating the insane. In 1902 there were almost 2,000 patients living in the colony, many of them active and apparently useful citizens as far as the individual capability of each was concerned. The village is divided into sections, each of which is under the charge of an experienced alienist who visits each case at definite intervals, depending upon the gravity of the disease. Careful records are kept and are transmitted to the medical director of the colony. There is also a central hospital where the very sick or the uncontrollable are treated. In connection with this there is a laboratory for the study of the post-mortem material and for the investigations of scientific problems in the treatment of the insane. The account given in this paper should be read by those interested in the care of the insane. This colony represents the furtherest development of the non-restaint idea and its results are worthy of the most careful attention.

The Formation of Spaces Between the Teeth; An Early Diagnostic Sign in Acromegaly.—W. W. GRAVES (*Monatschrift fuer Psychiatrie und Neurologie*, July, 1904).—This is an important contribution to the problem involved in the diagnosis of acromegaly. Three cases of this disease form the material of this study. The author's conclusions which are in every way substantiated by the cases quoted are as follows: The symptom of space formation between the teeth in acromegaly is explained by the pathological changes which are already well known. 2. In the great majority of cases it is the first observed change in the jaw. 3. In a previously normal mouth this symptom may be observed a long time before that of progenia has made its appearance. 4. The definite establishment of the existence of this space formation between the teeth in connection with the other well-known prodromal symptoms of the disease permits of the establishment of the diagnosis of acromegaly without the other signs of the enlargement of the body in other places. For the reason that there is no other abnormal condition except acromegaly which unites at the same time an hypertrophy of the whole lower jaw without any inflammatory processes which can cause a separation of the teeth.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

Repair of the Urethra by Transplantation of the Urethra of Animals.—PRINGLE (*Ann. Surg.*, September, 1904).—Here the author describes two cases of men who had sustained a complete and extensive rupture of the urethra in the perineum, and one of a boy with hypospadias, treated by grafting into the tissues portions of the urethra of the ox. The treatment of these three patients represents five operations in which portions of an animal's urethra, varying in length from five to thirteen centimeters, have been implanted with success; that is to say, the grafted tissue lived and remained a patent channel. It is true that in two of the

patients the procedure required to be done a second time, but in each of them, at the time of the second operation, the tissue which had been grafted on the former occasion was found to be present. It was in the penile region which gave the trouble in the two patients, and this was due to the extreme difficulty there is in adequately maintaining this part in a state of rest; but where the graft was placed in the perineal region the result was excellent.

Total Enucleation of the Prostate for Radical Cure of Enlargement of That Organ.—FREYER (*London Practitioner*, September, 1904).—In the present article the author deals in detail with the after treatment of prostatectomy according to his method of enucleation.

With the delivery of the prostate from the bladder the essential part of the operation may be regarded as completed. The bladder is then irrigated with hot boracic lotion, through the catheter still *in situ*, to remove clots and control bleeding. This proceeding should not, however, be continued for more than two or three minutes, as these irrigations not unfrequently promote bleeding instead of diminishing it. A stout india-rubber drainage tube is now introduced through the supra pubic wound; a seven-eighth-inch tubing with a lumen five-eighths of an inch in diameter is used, and this should project into the bladder only sufficiently for its opening to lie completely within the cavity. On no account should the tube be inserted into the prostatic cavity. The edges of the parietal wound are brought together around the tube by silkworm gut sutures. No sutures are inserted into the bladder.

After again irrigating the bladder, a couple of inches of broad iodoform gauze tape are inserted in one angle of the wound against the side of the tube and left there twenty-four hours. Gauze dressings are now applied.

The bladder should be irrigated once daily with warm boracic lotion or a weak solution of permanganate of potash. During the first few days there should be very little pressure of fluid on the bladder, the irrigating can being held a little above the level of the patient's abdomen, so that the lotion flows into the bladder and out again through the drainage tube with very little force. The patient should lie on his back twenty-four hours, after which he should be placed alternately on either side and on his back. Bleeding should be combated by raising the foot of the bed and hypodermic injections of ergotin; pain and spasms of the bladder by hypodermic injections of morphia. After the first twenty-four hours the patient's head and shoulders should be raised to obviate hypostatic congestion of the lungs. No catheter is introduced into the urethra for the purpose of irrigation until the suprapubic fistula has contracted to such narow dimensions that it will not admit the nozzle of the irrigator. The bowels should be freely moved for three or four days before the operation, and then left undisturbed until three or four days after the operation. Several cases are quoted in illustration and the author's statistics are given.

Suprapubic Enucleation of the Prostate.—WALKER (*Inter. Jour. Surg.*, September, 1904).—The third lobe of the prostate is a misnomer, for it is nothing more than a projection, pedunculated or otherwise. from either

one lobe or the other. Aside from its smooth, tough, fibrous capsule, it has a fibrous sheath, which becomes thinner as the gland hypertrophies and pushes its way upwards and forwards. In fact, when the gland becomes very large, the recession of the sheath is such that the hypertrophy is covered only by vesical mucosa.

The removal of the prostate, or a part, may or may not modify the sexual function, depending upon how much injury is done to the ejaculatory ducts. The sexual function once learned is rarely ever lost entirely, as has been shown in numerous instances after a complete emasculation or double vasectomy. Fecundation, however, is another question. The time of commencement of a prostatic hypertrophy is much earlier than formerly was supposed. Cancerous enlargement of the prostate is not infrequent, and not suspected as such, being regarded as simply one of senile hypertrophy. Many men with enlarged prostates go through life with but little inconvenience until infection takes place.

The conditions that call for a surgical attack upon the prostate are: First, persistent urinary obstruction, with or without inflammation of the gland, bladder, or both. Second, frequent and painful micturition. Third, a permanent catheter life. These conditions derive but little in the way of permanent relief, either from local treatment or medication.

The perineal and suprapubic routes are regarded as the best avenues of approach, and, while it cannot be denied that in the hands of a few the use of galvanocautery through the urethra has been very successful, yet in the hands of the many it has proved very disastrous. If used at all, a perineal section should first be made and the electrocautery used after the method of Chetwood and Young. Nineteen prostatectomies by the perineal route with the mortality of two are reported, and nine suprapubic enucleations with one death. The author's method of operating is practically that of Mr. Freyer

---

A Radical Operation for Malignant Neoplasm of the Urinary Bladder.—Berg (*Ann. Surg.*, September, 1904).—It is proposed to open the perineal cavity by a three-inch incision just above the symphysis pubis, and, after packing away the intestines with moist gauze (with the patient in the Trendelenberg position), to divide the peritoneum of the pelvic floor straight across. The peritoneum is then bluntly raised up from the pelvic floor to the level of the bifurcation of the common iliac artery, where the ureter, previously catheterized, is easily identified. The glands and lymphatics along the internal iliac artery, together with the surrounding loose cellular tissue, are removed. If the ureters are involved they may be exsected and afterwards transplanted into the bladder fundus. The bladder is now opened and the neoplasm widely excised. The bladder wall is sutured and the entire pelvic floor drained with gauze; in the female through the vagina; in the male by a counter perineal incision, between the rectum and the prostate. The writer feels that the possibility of effecting a lasting cure justifies the proposal of this operation. Either we must remove the glands and lymphatics together with the neoplasm, or else give up the hope of curing our patients. Two cases operated upon in this wise are reported.

The Best Method of Operating to Effect a Radical Cure of Senile Hypertrophy of the Prostate Gland: Based on the Study of One Hundred and Fifty Radical Operations.—Horwitz (*N. Y Med. Jour. and Phila. M. J.*, August 6, 13, 20, 1904).—The operations of Bottini, the perineal and suprapubic methods of attacking the prostate are given full consideration. The author believes that prostatectomy is always attended with more danger than the Bottini operation, and the convalescence is more prolonged. In suitable cases the latter operation is, therefore, the one of choice. Of the prostatectomies, the author prefers the perineal method as advocated by Bryson, slightly modified by the author, and regards the attempts made by other operators to save the ejaculatory ducts as illusory. The suprapubic method is relegated to those cases unsuited to either of the above. It is noteworthy that the dangers attendant upon daily catheterism are considered greater than those of a radical operation performed at the onset of the symptoms caused by the obstruction, and that the proper time to perform a radical operation is reached as soon as it becomes necessary for a patient to resort to daily catheterism.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

On the Employment of Antistaphylococcic and Antitubercular Vaccines.—By Dr. A. E. Wright and Capt. Douglas (*British Journal of Dermatology*, August, 1904).—Dr. Wright demonstrated before the Dermatological Society of London, on June 8th last, his views on the subject of inoculation against the tubercle bacillus and staphylococcus. He believes that this subject has a wider application than dermatology. His experiments have been largely against surface infection. He has been working upon the process of immunization and believes that with this we can obtain better results than by local antiseptic treatment. A considerable percentage of cures being the result of the protective substances which the organism evolves within itself, Dr. Wright undertook to learn the relative amount of this protective substance in the blood of tubercular or staphylococcic patients, in the pus from the abscesses and in the blood of normal persons. It was found there was very much less of the protective substance in the blood of the patient affected than in the blood of a normal man, while in the pus from the abscess the amount was almost nil. If the normal amount of protective substance be represented by 1, the protective substance of a subject of staphylococcic invasion will be .3 or .4 or .6. He concludes that the infection by a particular micro-organism means that the patient possesses a small power of resistance and has less protective substance in his blood. He then takes up the study of the cause of events after the inoculation of a vaccine, by a vaccine meaning any substance that, on being inoculated into the body, will cause the generation of a protective substance. After ascertaining the amount of protective substance in a man's blood, he

inoculates with a sufficient amount of vaccine to produce constitutional symptoms and there results a diminution of protective substances in the blood. That period of diminution he terms the negative "phase," and it is followed by stimulation. Immunization must produce a negative phase, and it is not possible to get the body to do anything without first stimulating it, and the stimulus consists in the application of this poison to the cells, using up whatever protective substance is in the blood. By exercising care the negative phase can be made a small one. Following the negative phase a positive phase develops showing the production of protective substances in the blood. If one could keep the protective power of the blood up to the height it then attains, one inoculation would be sufficient. As a matter of fact, several inoculations are necessary, for the reaction gives way in a short time, though the protective power of the blood never goes quite as low as it was before the inoculation. As to the question of technique, Dr. Wright first of all makes the vaccine. In the case of staphylococcus, he makes a culture, and, as it is undesirable to inoculate virulent staphylococci, he kills them by keeping in a temperature of 60° for a certain time. A very small amount of carbolic acid (about ½ per cent.) is added to prevent contamination. It is then counted. This is done by mixing with a volume of the bacterial culture a volume of blood. It is stained and examined and the number of staphylococci are compared with the number of red blood corpuscles, the calculations based on the supposition that there are five thousand millions of the red blood corpuscles to the cubic centimeter. The process of inoculation consists of the sterilizing and introducing of the syringe. After an inoculation of typhoid bacteria the blood test will show an increase of two thousand times in bactericidal power, but it gains nothing in that power after an inoculation of staphylococcus, but there is produced a substance which paralyses the staphylococci, makes them subject to phagocytosis and alters them so that the white blood corpuscles can afterwards ingest them, hence the name of opsonins, from the Greek word "to cook," which Dr. Wright has applied to them. The white blood corpusles are not altered in the course of the immunization; the only thing that is altered is the serum, which becomes richer in opsonins. In connection with tuberculin, it has been found that opsonic substances exist in the blood for tubercle. It has been found that after inoculating the patient with tubercle vaccine, giving the proper interspaces, there is an increased phagocytic power of the blood.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

On the Surgical Treatment of Laryngeal Tuberculosis.—KRIEG (*Archiv. fuer Laryngologie und Rhinologie*, Band 16, Heft 2) compares the present status of the surgical treatment of laryngeal tuberculosis with that of ten years ago. At that time energetic treatment was generally em-

ployed. According to the literature on this subject, the majority of laryngologists have gradually given up radical surgical procedures, and confine themselves to disinfectants and antibacterial medication, while a comparatively small number still employ cutting instruments and only a very few employ the galvano-cautery to destroy the disease process. The author points out that when a tubercular infiltration occurs on the skin, tonsils or any other portion of the body, every effort is made to remove or destroy it. He also calls attention to the post mortem findings showing that a great many cases of tuberculosis of the lungs heal spontaneously, while, on the other hand, a spontaneous cure of laryngeal tuberculosis is exceedingly rare. According to statistics, about one-third of all cases of tuberculosis of the lungs are complicated by laryngeal tuberculosis. The importance of this complication is at once apparent. The writer, therefore, urges early energetic treatment. Krieg believes all other forms of treatment have no value. The author is an enthusiastic advocate of the galvano-cautery for destroying the tuberculous process. Its advantages over cutting instruments are that all points in the larynx can be reached with it, which is not the case with the former. If only a dull red heat is employed no bleeding follows and very little reaction occurs. A tabulated report of sixty cases of laryngeal tuberculosis is given in which a cure was brought about: some of the cases have been under observation since 1888 without recurrence of the trouble.

On the Paracentesis Question.—BURKNER (*Archiv. fuer Ohrenheilkunde*, Band 62, Heft 3 and 4).—In order to determine whether the majority of cases of acute otitis media are better treated without performing a paracentesis, as claimed by Zaufel and Piffl, the writer has carefully observed forty-four cases of acute otitis media, and compared the results he obtained when an early paracentesis was performed in all cases in which there was severe pain, fever and a bulging and reddened drum membrane. The author found that when an early paracentesis is performed the disease will run its course in about one-third the time, the suffering of the patient will be greatly lessened and serious complications less frequent.

The Application of Eucainum Lacticum in Otological and Rhinological Surgery.—KATZ (*Theraputische Monatschrifte*, August, 1904).—The author has been experimenting with the lactate of eucaine as a substitute for cocaine. He has used this preparation in twenty different cases (various minor operations on the nose and ear) and finds that the anesthesia produced by it is equal to that of the muriate of cocaine. The drug was employed in 10 and 15 per cent. solutions and applied in the same manner as cocaine is ordinarily applied. The advantages claimed for it are that it is decidedly less toxic, and that it causes no shrinking of the tissues, which is a decided advantage in some operations on the nose and ear.

On the Treatment of Ozæna.—SIZIEMSKY (*Roussky Vratch*, rev. *N. Y. Med. Jour.*, September 17, 1904) has collected from the literature one hundred and ten cases of ozæna treated by means of the diphtheria anti-

toxin. Of these cases, 22 per cent. were permanently cured, 6 per cent. almost completely cured, 37 per cent. improved, 24 per cent. temporarily improved. In 8 per cent. the result was uncertain because the treatment had been abandoned too early, and in 3 per cent. the results were negative. It appears from this statement that diphtheria antitoxin is a remedy which gives favorable results in most cases of ozæna. While the theoretical basis of this treatment is as yet not completely worked out, clinical results have been so satisfactory that it may considered as a fairly trustworthy method. The author reports two cases of ozæna which he treated with success with the anti-diphtheritic serum. The theoretical basis of this treatment should not be looked for, as some have done, in the similarity of the germ of ozæna to that of diphtheria, but in the similarity of the toxines of these two affections in a chemical sense.

Need of More Accurate Knowledge in the Diagnosis and Treatment of Chronic Suppurative Otitis Media.—McCaw (*Medical News*, August 27, 1904) says that the importance of chronic suppurative otitis media in the early application of appropriate treatment should be fully appreciated by every practicing physician. He ventures the opinion that many patients die from intracranial complications in which the chronic suppurative middle ear disease is never recognized as a causal factor. The writer's conclusions are:

1. Chronic otorrhea is not given the importance that its gravity demands.
2. In all cases the treatment should be based on the pathological condition present.
3. In addition to proper attention to the nose and nasopharynx and all minor surgical procedures, appropiate treatment to the middle ear will yield good results in a large percentage of cases.
4. Where caries is limited to the ossicular chain, and there are no contra-indications, ossiculectomy should be the operation of choice.
5. Cases presenting symptoms of extension beyond the tympanic cavity should be subjected to the radical operation.

Two Cases of Abscess of the Cerebellum Cured by Operation.—Alt (*Monatschrift fuer Ohrenheilkunde*, July 1904).—The writer reports two cases of abscess of the small brain cured by operation. In one case the abscess occurred during the course of an acute otitis media; in the other during the course of an old suppurative middle ear trouble. In both cases the abscesses were the result of a direct extension of the inflammatory process of the bone to the dura mater and from there to the brain surface. In both cases a fistulous opening in the dura led directly into the abscess cavity. In both cases the surface of the small brain was broken down by the inflammatory process. The abscesses contained about a teaspoonful of pus each. In the one case the operation was performed according to the method of Jansen, and in the other according to the method of McEwen.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

I. Opaque Nerve Fibers Extending Over a Large Area of the Fundus, Including the Macula. II. Patches of Opaque Nerve Fibers Separated from the Optic Disk.—C. O. HAWTHORNE (*Ophthalmoscope*, September, 1904).—These cases are interesting as varying notably from the usual appearance of opaque nerve fibers. Ordinarily one or more lustrous white patches are seen to jut out from the disk margin. Central visual acuity is not impaired, although the area of the blind spot may be increased.

In Case I the opaque nerve fibers completely encircled the disk and extended over and beyond the macula. The disk itself was only slightly involved. The macular portion presented some irregularity of surface, but was not fibrillated. V-O. The fellow eye was normal.

In Case II the opaque nerve fibers were situated in two groups and separated from the disk by a clear interval of normal fundus. V. normal.

Neuropathic Heredity a Possible Etiologic Factor in Paralysis of the Rectus Internus.—DE MICAS (*La Clin. Ophthalm.*, August 10, 1904).—Syphilis, tabes, multiple sclerosis, diabetes and intoxications are some of the causes of ocular paralyses. In two cases of doubtful etiology recently observed, de Micas obtained the following family histories:

In Case I the father suffered from loss of memory and a shaking palsy; the paternal uncle was an alcoholic, the mother was extremely nervous and suffered from photophobia; the maternal aunt had severe nervous attacks; the maternal great-uncle was an epileptic, and the paternal cousin was an idiot.

In Case II the patient's brother died of meningitis, the maternal aunt was an epileptic, and the maternal uncle was an alcoholic and suffered from delirium tremens.

An Unusual Dilatation of the Superior Temporal Artery and Vein of the Retina.—B. L. MILLIKIN (*Arch. of Ophthalm.*, September, 1904).—In a boy of fifteen the superior temporal artery and vein were found enlarged to three or four times the diameter of the other vessels. The dilation was present at the point of emergence from the optic disk and maintained a uniform caliber as far as the vessels could be traced. Toward the periphery tortuosity was marked; black pigment deposits and a patch of apparent choroiditis were situated near the venous loops. Vision in both eyes was normal.

The condition was thought to be congenital.

Note Upon the Size of the Pupil in Iritis.—H. HERBERT (*Ophthalmoscope*, September, 1904).—The text books invariably give as one of the diagnostic signs of iritis "a small pupil." Herbert's experience in India is somewhat at variance with this statement. He finds that in un-

treated cases of iritis, iridocyclitis and iritis secondary to corneal affections the pupil of the affected eye is somewhat larger than the pupil of the sound eye in distant fixation in ordinary daylight.

When the iris is merely hyperemic the pupil may be small as the result of spasm of the sphincter. During acute inflammation the same effect is due to anchoring by posterior synechiæ, and later still from the shrinkage of a pupillary membrane. In severe cases paresis of the sphincter may account for a slight enlargement of the pupil.

The Subconjunctival Injection of Cocaine in Cataract and Other Operations.—CARL KOLLER (*Ophthalmoscope*, September, 1904).—In order to secure satisfactory anæsthesia of the iris in cataract and other operations Koller recommends the following procedure: The conjunctiva is anæsthetized in the ordinary manner. Two or three drops of a 5 per cent. solution are injected under the conjunctiva at a point opposite the primary puncture. In five minutes the pupil will be dilating, and the operation, including the iridectomy, can now be performed painlessly. In operating on non-inflammatory glaucoma Koller uses a mixture of pilocarpin and cocaine. In operating for acute glaucoma general anæsthesia is preferred.

A Bacteriological Study of Trachoma, with Remarks on the Occurrence of the Influenza Group of Bacteria in Conjunctivitis.—A. KNAPP (*Arch. of Ophthalm.*, September, 1904).—Knapp concludes as follows:

1. An influenza-like bacillus identical with the Mueller "trachoma bacillus" was found present in eight out of one hundred and twenty fresh cases of trachoma examined. It was present in the greatest number in a case of clinically "acute trachoma."

2. This organism could not be differentiated from the true or pseudo-influenza bacillus—morphologically, culturally or by animal experimentation.

3. It seems probable that its presence in these cases of trachoma was accidental.

4. There is an influenzal conjunctivitis without other manifestations of influenza.

5. The Koch-Weeks bacillus is not identical with the influenza organism.

BOOK REVIEWS.

INTERNATIONAL CLINICS, VOL. II. Fourteenth Series, 1904. Philadelphia: J. B. Lippincott Co. 1904.

The chief interest in this volume lies in a series of beautifully illustrated articles on tropical diseases. After a general article on the spread of diseases by insects, there are taken up in turn sleeping sickness, malarial hemoglobinuria, uncinariasis, liver abscess, beri-beri, etc., to end with a suggestive article by Dr. Duncan, of the London School of Tropical Medicine, on the treatment and mode of life to be pursued on return to a cold climate by those suffering from the commoner affections incidental to a sojourn in tropical climates. Four articles on treatment, three on medicine, five on surgery and one each on pediatrics and rhinology, complete the volume.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For Students and Practitioners. By JAMES NAVINS HYDE, A. M., M. D., and FRANK HUGH MONTGOMERY, M. D. Seventh and revised edition. New York and Philadelphia: Lea Brothers & Company. 1904.

This volume is illustrated with 107 engravings and 34 plates in color and monochrome. The latter are not of unusual excellence, but they portray very well the types of disease. Drs. Hyde and Montgomery's treatise has always had a high rank among text-books on diseases of the skin. This revised edition is very thoroughly up to date, including the new forms of electrical treatment of skin diseases, namely, x-ray, high frequency, etc. The chapter on treatment of eczema is particularly good and gives the reader a definite outline of the proper manner of procedure in each type of the disease. We can thoroughly recommend the volume to those for whom it is intended.

RADIOTHERAPY, PHOTOTHERAPY AND HIGH FREQUENCY CURRENTS. The Medical and Surgical Applications of Radiology in Diagnosis and Treatment. By CHARLES WARRENNE ALLEN, M. D., Professor of Dermatology in the New York Post-Graduate Medical School. Octavo, 618 pages, 131 engravings and 27 plates. Cloth, $4.50 net. New York and Philadelphia: Lea Brothers & Company, Publishers.

With the books of Williams, Pusey, Freund and Allen we are quite thoroughly supplied with text-books upon light treatment, yet the progress in this line of treatment has been so rapid in the last few years that new books upon the subject are not unnecessary, for they bring before the reader not only one investigator's experience but a thorough and critical review of the literature to date. This book of Dr. Allen's brings the subject up to the date of publication and gives in a very clear manner the different procedures and practical application of these different forms of energy in the treatment of disease and also the various theories regarding them. The book is well worth a careful reading and is a fair and unbiased representation of the subject. As a work of reference and for practical instruction in the various forms of electrical energy used in the treatment of various diseases, it can be highly recommended.

A PRACTICAL TREATISE ON GENITO-URINARY AND VENEREAL DISEASES AND SYPHILIS. By ROBERT W. TAYLOR, A. M., M. D. Third edition, thoroughly revised. New York and Philadelphia: Lea Brothers & Company. 1904.

This volume, so widely known, we are glad to say has reached a third edition. No one in this country has a greater reputation as a syphilographer than Dr. Taylor, and his long and varied experience is portrayed in this most valuable volume. The subject of gonorrhea in both sexes, in all its varied phases and complications, is thoroughly discussed and various fallacies and dangers graphically pointed out. Numerous excellent plates illustrate the different syphilitic eruptions, and the text is replete in its discussion of this protean disease. The treatment of syphilis receives special attention and is happily practical, including all of the various methods of introducing mercury into the system. There are 163 illustrations and 39 plates in color and monochrome.